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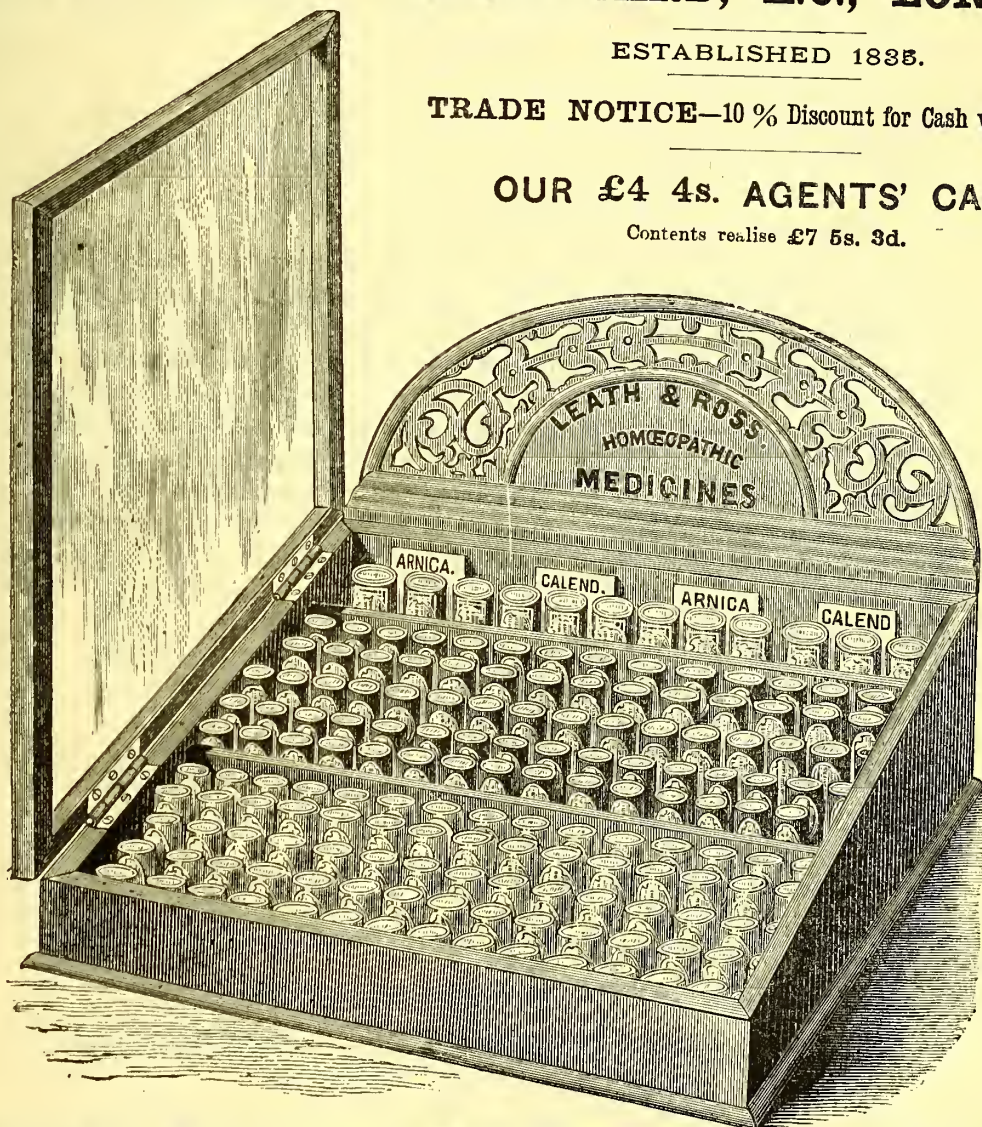
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NOTICE.—At a Special Term of the Supreme Court of the State of New York, held in and for the City and County of New York, at the Court House in said city, the 2nd day of August, 1884.

Present—Hon. CHARLES H. VAN BRUNT, Justice.

THE
CHESEBROUGH MANUFACTURING COMPANY
(CONSOLIDATED),

Plaintiff,

against

HENRY KROENCKE and RUDOLPH LUEDEMANN,

Defendants.

“Ordered, adjudged, and decreed that the above-named defendants, as co-partners under the firm name of Henry Kroencke & Luedemann, and the defendant Rudolph Luedemann, and each of them, and each of their servants and agents, be, and they and each of them hereby are, for ever restrained and enjoined from preparing, putting up, selling, or offering for sale any article in imitation of the plaintiff's ointment, known as ‘Vaseline,’ or any article bearing the name of ‘Vaseline,’ or ‘Chesebrough Vaseline,’ or ‘Chesebrough Manufacturing Company's Vaseline,’ or any imitation of said name or names, or any imitation of the trade-mark of the plaintiff in said complaint described.”

Counsel for Plaintiff,

COUDERT BROS.

The attention of druggists and others is called to the above injunction, obtained in the Supreme Court of this State, restraining the infringement of the trade-mark of this corporation.

CHESEBROUGH MANUFACTURING COMPANY

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New York, September 1st, 1884.

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CONDY'S FLUID—IMITATIONS.

APOLOGY AND INJUNCTION.

In the High Court of Justice (CHANCERY DIVISION).

CONDY & MITCHELL, Limited, *Plaintiffs*,
67 Turnmill Street, London, E.C.

v.

ROBERT SUMNER & CO., *Defendants*,
WHOLESALE DRUGGISTS, 40a Lord Street, Liverpool.

We, the undersigned Defendants in this case, having, in ignorance of the legal rights of the Plaintiffs, sold disinfecting fluid under the name of "CONDY'S FLUID," such compound **NOT** being of the Plaintiffs' manufacture, hereby express our regret, and have consented to a **PERPETUAL INJUNCTION WITH COSTS** in this action.

Dated 17th day of October, 1884.

(Signed)

R. SUMNER & CO.

(Witness)

J. W. THOMPSON, Solicitor, Liverpool.

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NOTICE.



NEPENTHE.

FERRIS & Co., v. GOODMAN.

NOTICE IS HEREBY GIVEN that by an Order of the Chancery Division of the High Court of Justice, made the 18th day of July, 1884, in the above action, **IT WAS ORDERED** that the Defendant and others be perpetually restrained from selling, or offering for sale, any formula or recipe for "**Nepenthe**," and from otherwise prejudicing the sale thereof by, or injuring the title thereto, or Trade Mark therein, of the Plaintiffs, **Messrs. Ferris & Co., of Bristol**, the registered proprietors thereof.

And it was further ordered that the Defendant do pay the costs of the said Action.

Dated this 12th day of August, 1884.

(Signed) CHILTON & GREEN-ARMYTAGE, BRISTOL,

Solicitors for the said Plaintiffs.

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15th December, 1884.



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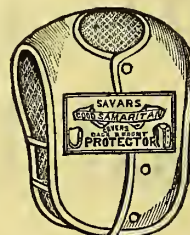


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RESULT OF THE OCTOBER EXAMINATIONS.

5 Minor men were sent in, 4 passed; 1 Preliminary man was sent in, 1 passed; viz.:-

Mr. W. H. HAYWOOD	Liverpool	} At the London Exams.
„ A. C. OLDS	Liverpool	
„ J. T. HORNBLLOWER	Birmingham	} At the Edinburgh Exams.
„ GEO. LUNAN	Benchery Ternan	
Mr. C. F. PARKER (Preliminary), Liverpool.		

Of these 5, 4 passed on their first attempt, the other at his second; nor is this any new experience, for out of the last 9 that have passed from this School, 7 have been successful on their first attempt, and the other 2 on their second. To appreciate these figures it is necessary to compare them with the total results of the Examinations at both centres, which are—

In London 105 were examined, only 34 passed. In Edinburgh, 47 were examined, and only 23 passed.

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SEVENTEENTH SESSION, 1884-5.

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Mr. S. HASSALL, Windsor.
Mr. W. BERRY, Manchester.
Mr. J. B. WILLIAMS, Manchester.

Three students, all who entered, also passed the October Preliminary, viz. :—

Mr. G. E. CAVE, Bowdon.
Mr. G. PENTY, Manchester.
Mr. J. C. WHITE, Grimsby.

The classes for the December, January, and February Examinations are now at work. Students wishing to join them are requested to do so without delay.

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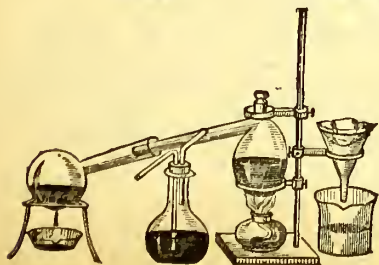
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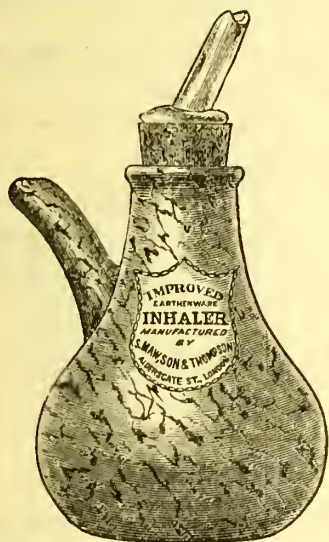


FIG. 8.
MAW'S IMPROVED.



FIG. 13.
ELASTIC TUBE.

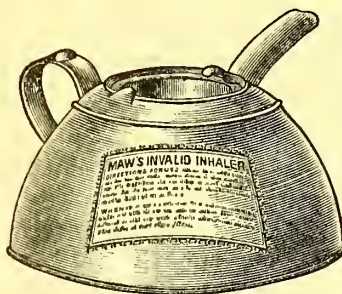


FIG. 100.
MAW'S INVALID.

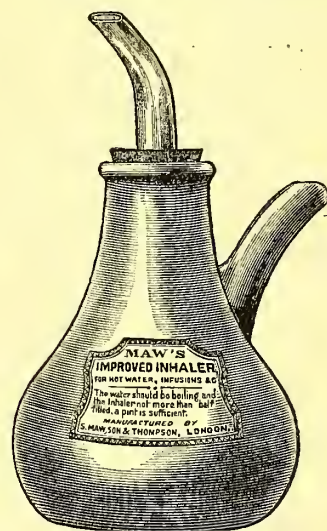


FIG. 8a.
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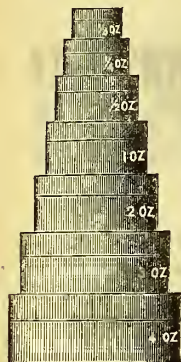
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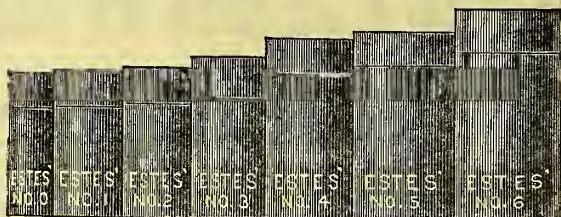


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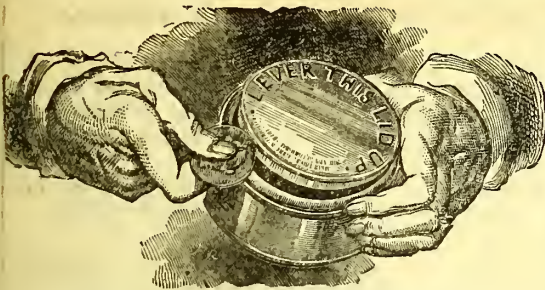
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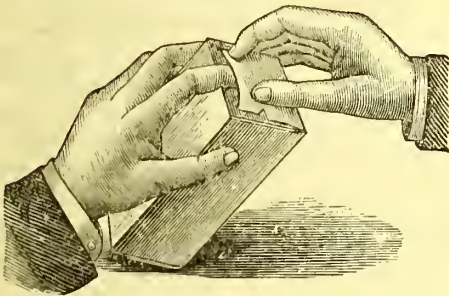
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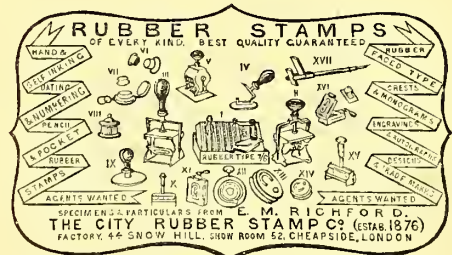
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INVENTED BY A TALENTED PHYSICIAN.

Recommended by eminent Surgeon-Dentists. Patronised by the "Monde élégant" as the best and most agreeable liquid Dentifrice yet introduced.

PROPRIETORS—

BARTON BROTHERS, BRIGHTON.

Also Sole Proprietors of the Original

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MECHANICAL DENTISTRY.

The most PERFECT FIT and HIGHEST FINISH, with Punctuality, may be relied on in all Work entrusted to

Mr. MATTHEWS,
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Who has had 35 Years' Experience in every branch of Dental Workmanship. The most Moderate Scale of Charges possible to ensure Good Work and Best Materials. Price List on application. A vacancy for a pupil.

TWO DENTISTS AND CHEMISTS.—Every description of Artificial Teeth made at greatly reduced charges. Best work and best materials only.

An Upper or Lower Set, inclusive of Teeth Rubber, &c., £1 1s.
Ditto, ditto, on Platina, £2 2s.

Send for Price List.

Twenty years' experience in mechanical work.

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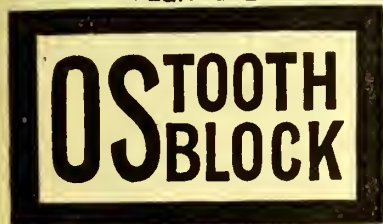
F. BUCK, 6 Hanover Place, Upper Baker Street, London, N.W.

OSCAR SUTTON & CO., PRESTON, LANCASHIRE.

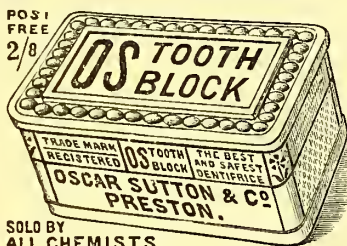
CAUTION AGAINST IMPOSITION.**O.S. TOOTH BLOCK.**

Be particular to observe that the Registered Trade Mark and the name "OSCAR SUTTON & CO." are stamped on all that are genuine, as worthless imitations are in the market.

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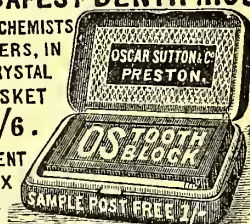
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 ELEGANT CRYSTAL
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PRICE 2/6.

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Dr. J. J. Pope, M.R.C.S., L.S.A., Professor of Hygiene, Birkbeck Institute, Lecturer on the Special Staff of the National Health Society, London (author of "Number One, and How to Take Care of Him").
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 Wholesale of Messrs. Evans, Barclay, Hovenden, Maw, Newbery, Thompson, Edwards, Sanger, Butler & Crisp, W. Sutton & Co., Lynch, &c., London, and of all the leading Dental Houses; also of Messrs. Felton, Grimwade & Co., Locke, Tompsett & Co., Melbourne, and the principal Colonial Agencies, &c. Write to above address for particulars.

AROMATIC DENTAL SCALING POWDER.

Is unquestionably one of the best Dentifrices yet introduced, contains no acid or any other ingredient likely to act injuriously on the enamel, and, as its name denotes, is for the removal of tartar, &c., from the teeth, restoring them to their natural colour. May be used with advantage to children's teeth, as its antiseptic qualities destroy all living organisms likely to produce decay.

Being delicately perfumed, it leaves a fragrant and pleasant taste in the mouth.

PREPARED AND PRACTICALLY TESTED BY

CHAS. ALEX. BANNERMAN, Surgical and Mechanical Dentist, 27 Derby Road, SOUTHPORT, LANCASHIRE.

In boxes 1s. 6d. each. May be ordered through the Wholesale Houses or direct.

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N.B.—Instruction in Mechanical Dentistry given to Chemists on the Dental Register; terms moderate.

WHITE AND SOUND TEETH.**JEWSBURY AND BROWN'S ORIENTAL TOOTH PASTE.**

This old-established and increasingly favourite Dentifrice has been Fifty Years before the Public. It is warranted to retain its properties and keep in good condition in any climate.

The original and only genuine is manufactured solely by

JEWSBURY and BROWN,
 CHEMISTS, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered.

Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address card and directions for enclosure.

GREENSILL'S FAR-FAMED MONA BOUQUET

THE ORIGINAL AND ONLY GENUINE.

The great popularity of this exquisite Perfume is a proof of its excellence and superior qualities.

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AGENTS—LONDON: Sanger; Maw; Edwards; Newbery; Mather; Barclay; Whittaker & Grossmith; Hovenden; Parton & Osborne; Butler & Crisp; Tidman & Son; Barron & Squire; Wright, Layman & Umney; Jno. Thompson; Burgoyne, Burdidge & Co.; Grimwade, Ridley & Co.; Bales Brothers; Lynch & Co. LIVERPOOL: Evans, Sons & Co.; Clay, Dod & Case; B. Sumner & Co.; Raines & Co.; Ayrton & Saunders. MANCHESTER: J. Woolley; Lynch & Bateman; Jewsbury & Brown; Mather. EDINBURGH: Duncan & Lockhart. DUBLIN: M'Master; Hodgson. YORK: Sutcliffe & Headley Clark, Bleasdale. THIRSK: Wm. Foggitt. BRISTOL: Ferris & Co. LEEDS: Goodall & Backhouse. BIRMINGHAM: Churchill & Son; P. Harris & Co.; Parton & Osborne; Southall Bros. & Barclay.

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Refuge for Douglas Bay

Dr. C. R. Coffin's AMERICAN DENTIFRICE.

Prepared only by WILLIAM DABLING, Chemist, Manchester. May be had from S. Maw, Son, & Thompson; Barclay & Sons; F. Newbery & Sons; Sanger & Sons; and any Wholesale House in London. Price 2s. per Box, and Family Jars 10s. each.

OKELL'S ORIGINAL MONA BOUQUET

Retail, 1/1, 1/9, and 3/6; Wholesale, 9/1, 15/1, and 30/1 per doz.

This much-admired Perfume (prepared by the Widow of the late Joseph Okell), may be obtained from the leading Patent Medicine Houses, Wholesale Druggists, and Druggists' Sundry Dealers.

Applications for WHOLESALE Agencies to be made to the Sole Consigner, THOMAS WEST, Chemist, 61 Chester Road, Stretford, Lancashire.



SILVER MEDAL AWARDED

"The Perfection of Nursery Powders."

"SANITARY ROSE POWDER,"

(REGISTERED TRADE MARK).

A SOLUBLE Antiseptic Dusting Powder for TOILET and CHILDREN'S USE.

RECOMMENDED BY EMINENT MEDICAL AUTHORITIES.

Useful in cases of irritability or chafing of the skin, for unpleasant perspiration, &c. Suitable for application to the tenderest skins of Infants and Invalids, and superior to the ordinary Toilet Powders for Ladies' use.

SPECIALLY ADAPTED FOR HOT CLIMATES.

EXTRACTS FROM THE MEDICAL PRESS, &c.

"It promises well for Nursery Use."—*The Lancet*.

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"As a high-class toilet powder this preparation is likely to enjoy a good deal of favour."—*The Chemist and Druggist*.

"A very superior article, fragrant, soothing, cleanly."—*The Queen*.

In Boxes, 1/, 1/9, and 3/, and in large Bottles, 5/. Sample Packets, 6d.

SPECIAL AGENTS:—Rio de Janeiro: CRASHLEY & Co. Rio Grande and Porto Alegre: HALLAWELL & Co. Madras Presidency: OAKES & Co.; Sydney and Brisbane: ELLIOTT BROS. Natal: T. H. DRURY & Co., Pietermaritzburg.
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Manufacturing Pharmaceutical Chemists, MANCHESTER.

SHOW TABLET AND HAND BILLS ON APPLICATION.

Robare's Aureoline,

OR

GOLDEN HAIR WASH.

The attention of the Trade is respectfully called to the above Article, now having a large sale, and giving an excellent profit to the Retailer.

5/6 size, 36/ per doz. 10/6 size, 72/ per doz.

SOLE WHOLESALE AGENTS—

R. HOVENDEN & SONS, LONDON.

JAMES'S TOILET SPECIALITIES.

JAMES'S HERBAL OINTMENT, for the Cure of Pimples, Black Specks, Blotches, &c., and taking away Tan Freckles, Sunburn, &c. Sold by all Chemists, 1/1½ and 2/9 per box.

JAMES'S DEPILATORY,

For the instant removal of Superfluous Hair. Sold by all Chemists, 1/- and 2/- per box.

JAMES'S HERBAL POMADE,

For Promoting the Growth of the Hair, Whiskers, Beard, Moustachios, Eyebrows, and Eyelashes. Sold by all Chemists, 1/- and 2/- per box.

These Articles are well worthy the attention of Chemists, Wholesale Houses, and others, as they are being well advertised.

JAMES & CO., 226 Caledonian Rd., LONDON, N.

BEAUTY—WOMAN'S GREATEST CHARM.

NORINA'S EMOLLIENT,

Prepared from the Recipe of the late Dr. ANDERSON, produces a lovely complexion. It is elegantly perfumed, without sediment, and perfectly harmless. One of the best preparations before the public. Largely advertised and in great request. 4/6 each.

Agents—Messrs. NEWBERRY, King Edward Street, Newgate Street, London.

IMPORTANT TO SHIPPERS.



ASHWORTH'S PATENT METALLIC COMB-BRUSH AND METALLIC-BRISTLE COMB-BRUSH.

These brushes are delightfully cool to the head, producing a most agreeable sensation, and will penetrate the most luxuriant hair without injury. These handles are also in solid pieces, and hence will not fall apart as in the case of brush handles covered with veneer. The latter brush shows a most remarkable development in metallic brush making. It is made of fine tempered steel wires, about the thickness of ordinary bristles. This penetrates, SMOOTHS, and FIXES THE HAIR. It is, to express the words of a user, "Simply perfection as a hair brush, and must, when known, take the place of the bristle brush for toilet uses." Send for a SAMPLE BY POST AND TRY IT.

Prices of Metallic Comb-Brush, post free.

Ladies' and Gentlemen's Black Japan	1/9, 2/3, 2/9
Gentlemen's Black Japan, Military Style	2/0, 2/6, 3/0
Dog, Cattle, and Horse Brushes	2/0, 2/6, 3/0

Prices of Metallic-Bristle Comb-Brush, post free.

Ladies' and Gentlemen's Black Japan	2/4, 3/0, 4/0
Ivory-coated	2/8, 3/6, 4/4
Gentlemen's Black Japan, Military Style	2/8, 3/6, 4/4

The "Humanitas" Curry Comb Brush, for Horses, Dogs, Cattle, &c.—Prices:

Made of iron wire, covered with white metal—No. 1, 1/0 each; No. 2, 1/6 each.
" fine steel wire, covered with white metal—No. 0, 1/6; No. 0, 2, 2/0 each
All Goods are forwarded safely packed in Neat Box.

ASHWORTH BROS., Collyhurst, Manchester, England.

IMPORTANT TO SHIPPERS.

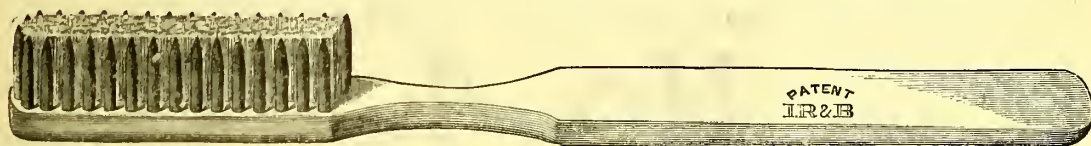
PATENTED IN ENGLAND, FRANCE, AND AMERICA.

S. MAW, SON & THOMPSON'S

ROYAL PATENT

I. R. & B. TOOTH-BRUSHES,

MADE OF INDIA-RUBBER & BRISTLES.



PRICE TO THE TRADE, 8/- PER DOZEN.

From *THE JOURNAL OF THE BRITISH DENTAL ASSOCIATION*, Jan. 15, 1884.

NEW INVENTIONS.

MESSRS. MAW'S PATENT I. R. & B. TOOTH-BRUSHES.

WE have received from Messrs. Maw & Co., of Aldersgate Street, specimens of a new pattern Tooth-brush, with the above designation, which they are about to bring under the notice of the profession. The initials refer to the "India Rubber and Bristles," of which the brushes are composed. They consist of a narrow bristle brush of the ordinary type, surrounded by a single row of stems of soft red rubber of nearly the same length. They are both efficient and pleasant to use, and we should anticipate that the superior durability and elasticity of the rubber will afford so much support to the bristles as to keep them in shape and working order for a much longer time than an equally soft ordinary bristle brush would wear. The chief object of the rubber addition is, however, to prevent abrasion of the gums, and it appears to answer this purpose very satisfactorily. To persons with tender, or partially edentulous mouths, brushing the teeth is an unpleasant and even painful operation; Messrs. Maw's brushes will certainly reduce the discomfort in such cases to a minimum.

MANUFACTURED BY

S. MAW, SON & THOMPSON, 7 to 12 Aldersgate Street, London.

Notice to the Trade.

GENUINE EAU DE COLOGNE

MANUFACTURED BY

JOHANN MARIA FARINA,
JULICH'S PLATZ No. 4,

A DESCENDANT FROM THE

Original Manufacturer of this Valuable Perfume,
IS KNOWN THROUGHOUT THE WORLD AS

No. 4.

AND SOLD BY ALL THE LEADING WHOLESALE HOUSES.

In 2 oz. Bottles.

In 4 oz. Bottles.

In 6 oz. Bottles.

In 8 oz. Bottles.

In reputed $\frac{1}{2}$ -Pint, Wickered.

In reputed Pint, Wickered.

In reputed Quart, Wickered.

In 4 oz. Bottles, Wickered.

JOHANN MARIA FARINA,
JULICH'S PLATZ No. 4,
COLOGNE-ON-THE-RHINE.

By Special Appointment to the Prince of Wales and to several Imperial and Royal Courts.

Possessor of PRIZE MEDALS and DIPLOMAS of the Exhibitions at LONDON, 1851; NEW YORK, 1853;
LONDON, 1862; OPORTO, 1865; CORDOVA (Argentine Republic), 1871; and at VIENNA, 1873; SANTIAGO (Chili), 1875;
PHILADELPHIA, 1876; CAPE TOWN (South Africa), 1877 (Gold Medal); SYDNEY, 1879; and MELBOURNE, 1880.

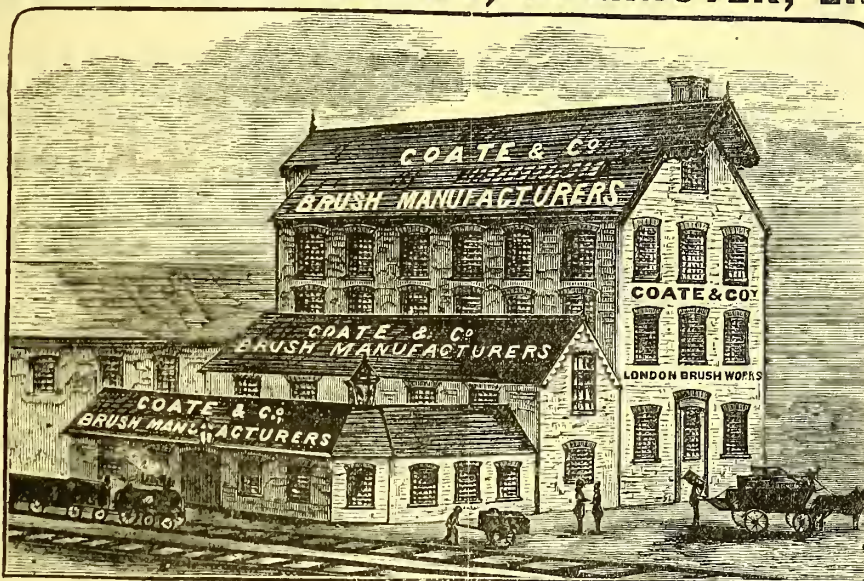
Sole WHOLESALE Agents for the United Kingdom and Colonies,

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COATE & CO.,

THE LONDON BRUSH WORKS, AXMINSTER, ENGLAND,



IVORY, BONE, AND WOOD BRUSH MANUFACTURERS,

AND

PATENTEES OF THE WHITE ENAMELLED TOOTH BRUSHES,

HAVING for several years past found it impossible to give that room and accommodation for PACKING, STAMPING, STORING, &c., which their growing business requires, as during the past year or two they have been favoured with a larger supply of orders than ever before, and although they often hold in Stock from Two to Three Thousand Gross of **Tooth, Hair, Nail, and Cloth Brushes**, made and partly made, yet from the limited accommodation which their Warehouse afforded they were unable to give their customers the full benefit of that Stock in the due and prompt execution of orders in reasonable time, they therefore resolved to move their Warehouse and Offices to their newly-acquired Freehold Premises at

AXMINSTER, DEVONSHIRE.

(as shown above), where they have ample room for training a sufficient staff in that special technical knowledge so requisite for their peculiar trade.

And they have reserved Land for the erection of any additional Workshop accommodation which may be required from time to time, and are fitting up their Factory with the latest improvements in all that relates to toilet Brush Manufacture.

Chard being only seven miles from Axminster, they will carry on their Branch Works at Nimer Mills, Chard, as heretofore. But all Sales, Orders, and Correspondence will be carried on at and from Axminster.

It is now thirty-six years since COATE & Co. established their special Factory for the manufacture of **Tooth, Hair, Nail, and Cloth Brushes** in London. Since that time the smoke in the atmosphere has so increased that it has become impossible to produce and finish their style of Brushes in London, a pure, clean atmosphere being indispensable, which they find here in perfection. They have also water power from the River Axe.

And to meet the requirements of the Trade, when Brushes are wanted by return, COATE & CO. have made special arrangements with MESSRS. BARCLAY & SONS, 95 Farringdon Street, who will hold a general stock of Coate's well-known Tooth Brushes, in all qualities, and supply the trade at C. & Co.'s prices.

But in all cases where Brushes are required to be stamped with Customer's name, orders will be received and executed through MESSRS. BARCLAY & SONS, or by COATE & Co. direct, with as little delay as practicable.

On every Wednesday and Saturday COATE & Co. send to their London Agents per tonnage rate whatever orders they have ready to CARTER, PATERSON & Co., Carriers, Goswell Road, London, who deliver each order free of cost in London to whatever wholesale House, Carrier, Railway or Shipping Agent their customer may order their goods to be sent by; and goods ordered to "wait instructions for forwarding" will, when such order is completed, be sent to the Carriers, CARTER, PATERSON & Co., London, and the invoice, with post card enclosed, sent to customers on the same day as the goods are sent off to London. COATE & Co. therefore beg customers, on receipt of invoice, to advise CARTER, PATERSON & Co. by what means they are to forward the Goods on to them.

With these increased facilities they hope still further to merit a continuance of the favours bestowed on them for so many years past; and of those who require the Best made Tooth Brush we respectfully solicit a small trial order for comparison against any makers' Tooth Brushes in the world.

WANTED.—Special Wholesale Agents for Calcutta, Bombay, Madras, Ceylon, New York, Chicago, and San Francisco.

P.S.—LATE OF 41 LISLE STREET, LONDON.

MARCH, 1884.]



THE CROWN PERFUMERY CO.,

177 New Bond St., London,

TRADE MARK. Beg to draw the attention of Chemists, Druggists, and Perfumery Dealers to their Fine Perfumes and Fancy Soaps, for the excellent quality of which

SEVEN PRIZE MEDALS HAVE BEEN AWARDED.

Concentrated Essences of Great Fragrance and Strength:—

Tanglewood,
Crown Bouquet,
Mathiola,
Stephanotis,

White Rose,
Jockey Club,
Ess Bouquet,
Wood Violet,

Frangipani,
Opopanax,
Ylang Ylang,
Isle of Wight Bouquet.

18/, 20/, 28/, 48/, and 84/ per doz.

SUPPLIED IN BOND FOR EXPORT AT GREATLY REDUCED PRICES.

THE CROWN SOAPS are prepared with great care from the purest materials, delicately perfumed, and very lasting.

BROWN WINDSOR, HONEY, ALMOND AND GLYCERINE, ROSE, &c.—In Card Boxes of 3 tablets each, 8/ and 12/ per dozen boxes; also in Wood Boxes of 7 or 14 lbs., 64/, 74/, 84/, and 120/ per cwt.

PURE COAL TAR SOAP.—Each tablet enveloped in tin-foil. 27s. per gross. The well-known disinfecting properties of this Soap have caused it to be in universal demand. Its regular use, especially in warm climates, quickly allays all irritation of the Skin, whilst its agreeable odour induces a feeling of freshness and comfort not attainable by any other means.

OPALINE SOAP, FOR THE TOILET AND NURSERY.—Absolutely pure, delicately scented, and very emollient. 4/ per dozen tablets.

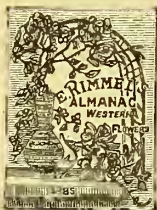
OPALINE TOOTH PASTE, the New Fragrant Dentifrice, 8/ per doz.

OPALINE FACE POWDER, 3/6 and 7/ per dozen packets; 15/ per dozen boxes.

Indents may be forwarded through any English Commission Merchant or Drug House.

ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE MANUFACTORY,
NEW FAIRFIELD WORKS, OLD BAILEY, E.C.

RIMMEL'S CHRISTMAS and NEW YEAR'S NOVELTIES.



RIMMEL'S PERFUMED ALMANACS for 1885, 6d. each, by post for 7 stamps.—“Western Flowers,” designed by Chéret; beautifully illuminated.

COMIC POCKET-BOOK ALMANAC, “On the Light Fantastic Toe,” with humorous designs by Faustin.

RIMMEL'S NOVEL AND ARTISTIC PERFUMED CHRISTMAS CARDS, from 1s. per doz. to 10s. 6d. each.

RIMMEL'S CHRISTMAS AND NEW YEAR SACHETS, from 6d. to 10s. 6d.

FANCY PERFUME BOXES, Baskets, and Hampers, from 6d. to £2 2s.

RICHLY-CUT SMELLING AND TOILET BOTTLES.

HIGHLY FINISHED CASES, filled with best perfumes, from 7s. 6d. to £10 10s.

ELEGANT PARISIAN AND VIENNESE FANS, the richest selection in London.

FIRST-CLASS ORNAMENTS FOR CHRISTMAS TREES, Lucky Shoe, Post Pillar, Silk Reel, Apple, Pear, Cradle, Lantern, &c., from 6d. Assorted Boxes, 2s. 6d., 5s., 10s. 6d., and £1 1s.

AMUSING CRACKERS, for Balls and Parties, Comic Conversations, Costumes, Lottery, Fan, Oracular, Beauty's Arsenal, Popular Tales, &c., from 2s. per doz.

WHOLESALE LIST ON APPLICATION. THE USUAL ALLOWANCE TO THE TRADE.

EUGENE RIMMEL, PERFUMER TO H.R.H. THE PRINCESS OF WALES, 96 STRAND, LONDON.

EWENS' CLARIFIED LARD, MARROW, SUETS, AND OILS.

JAMES EWEN & Sons are induced to give further publicity to these articles, the continued demand by all who have used them being satisfactory proof “that where purity of basis” in ointments, &c., is required, they are most desirable.

By their method of purifying, the fats are not chemically altered, but simply divested of all particles tending to decomposition, they are consequently available for the most delicate preparations.

Adeps. Benz. B. P. and Pharm. Lard (*vide* P. J. Vol. I. No. 8). Direct, “for Cash only,” from

JAMES EWEN & SONS' CLARIFIED FAT WORKS,
5 HATFIELD STREET, STAMFORD STREET, S.E.;

Or through any of the Wholesale Houses, with their usual credit, at a small advance.

CAUTION.—See that each package bears their label with name and weight.

GUEST'S HOUSEHOLD REQUISITES.

GUEST'S FURNITURE POLISH REVIVER.—An entirely new preparation, brilliant polish, little labour, and no finger-marks. In patent air-tight tins.

GUEST'S FURNITURE CREAM gives a brilliant polish with half the usual labour.

GUEST'S SILVERSMITHS' PLATE POWDER.—A new preparation, warranted to prevent tarnishing three times longer than any other.

GUEST'S CUTLERY POLISH gives a brilliant mirror-like lustre. Sold in perforated canisters.

GUEST'S BRASS POLISH.—Splendid polish, rich colour, with little labour.

GUEST'S BRUNSWICK BLACK.

W. G. & S. have every confidence in recommending above to the public, and earnestly solicit a trial. Samples and price lists on application.

WM. GUEST & SON,
NEPTUNE WORKS, PORTMAHON, SHEFFIELD.

WHITAKER & GROSSMITH'S PURE TRANSPARENT SOAP.

Is made by the **Old English Process**, and perfectly free from the rank smell and irritating effects of the cheap imitations. To meet the Retailer's requirements for this special kind of **Pure Soap**, which can be sold with a **Good Profit**, and compete with the **Stores' Prices**. We beg to notify that we are now supplying this Soap at the following low prices, and confidently solicit orders:—

In Tablets, Balls & Sticks, 6/- per doz., Unscented Ovals, 3/- per doz.

Special prices for quantities, with the option of having OWN NAME stamped upon the Tablets, and also printed on the Wrapper, &c.

22, SILK STREET, CITY, LONDON.

A PERFECT BOON TO MOTHERS! ROGERS' "NURSERY" HAIR LOTION.

One application is guaranteed to destroy all Nits and Parasites in Children's Heads, and immediately allay the Itching and Irritation. It is now used in Thousands of Families with the greatest success, and all who have tried it are delighted with the effect, and declare it to be worth A GUINEA A BOTTLE.

PREPARED ONLY BY
WILLIAM ROGERS,
CHEMIST,
BEN JONSON ROAD, STEPNEY, E.
Sold in large Bottles, price ONE SHILLING. Sample Bottle, 7d.

SOLD BY ALL CHEMISTS AND PERFUMERS.

Observe! Genuine only in Yellow Wrapper, White Label.
WHOLESALE AGENTS.—Barclay & Son; Edwards & Son; Maw, Son & Thompson; Millard & Son; Sanger & Sons; Thompson & Co., Limited; Butler & Crispe; Hovenden & Sons; Newbery & Sons.

BRECKNELL'S SKIN SOAP. REDUCTION OF PRICE.

Particulars will be forwarded on application to

**BRECKNELL, TURNER & SONS, Haymarket,
LONDON,**

Or to one of the Wholesale Houses.

TRADE MARKS—BULL AND BULL'S HEAD.

S. R. STEWART & CO., ABERDEEN COMB WORKS, ABERDEEN.



TRADE MARK.



AWARDED THE ONLY FIRST PRIZE MEDALS at London, 1862; Vienna, 1873; Paris, 1878; Sydney, 1879; Melbourne, 1880; Adelaide, 1881; Amsterdam, 1883; Calcutta, 1884, for

COMBS.

Real and Imitation Tortoiseshell, Buffalo, Rhinoceros, and pure White Horn.
DRUGGISTS' SCOOPS & SPOONS, FRUIT KNIVES, PAPER-CUTTERS,
AND ALL OTHER HORN GOODS. THE TRADE ONLY SUPPLIED.

BRANCHES—126 Queen Victoria Street, LONDON, E.C., & 14 Carr's Lane, BIRMINGHAM.

EAU DE COLOGNE

OF THE MOST ANCIENT DISTILLER,

JOHANN MARIA FARINA,

Opposite the Julichs Place, COLOGNE.

ESTABLISHED A.D. 1709.

PRIZE MEDALS:—LONDON, 1851 AND 1862; OPORTO, 1865; PARIS, 1867; VIENNA, 1873.

By appointment, Sole Purveyor to Her Most Gracious Majesty Victoria, Queen of Great Britain & Ireland; Their Royal Highnesses the Prince and Princess of Wales; William, King of Prussia;



Albert II., King of Saxony; Alexander II., Emperor of Russia; Francis Joseph, Emperor of Austria; Lewis, King of Portugal; H.R.H. Frederick William, Crown Prince of Prussia.

In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I beg to submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark, for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



All similar Labels being more or less imitations of the same, I shall proceed as before against all persons selling or exposing for sale any such imitations.

I only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has not been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 12s. 6d. per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra. 7½ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

I may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

The Goods can also be shipped in transit through London at a very small additional expense, full particulars of which may be obtained of my Sole Agents for Great Britain and Ireland:—

MESSRS. J. & R. McCRACKEN,

No. 38 Queen Street, Cannon Street, London, E.C.

The following are the sizes of my bottles:—

No. 1. Long Green Flasks	12 bottles	} to one dozen.
" 2. Short White Bottles	...	...	...	...	...	12 "
" 3. Double ditto	...	...	...	...	...	6 "
" 4. Wickered Bottles (small)	...	...	...	...	...	8 "
" 5. ditto (medium)	...	...	...	...	...	4 "
" 6. ditto (large)	2 "	

JOHANN MARIA FARINA,

OPPOSITE THE JÜLICH'S PLACE.

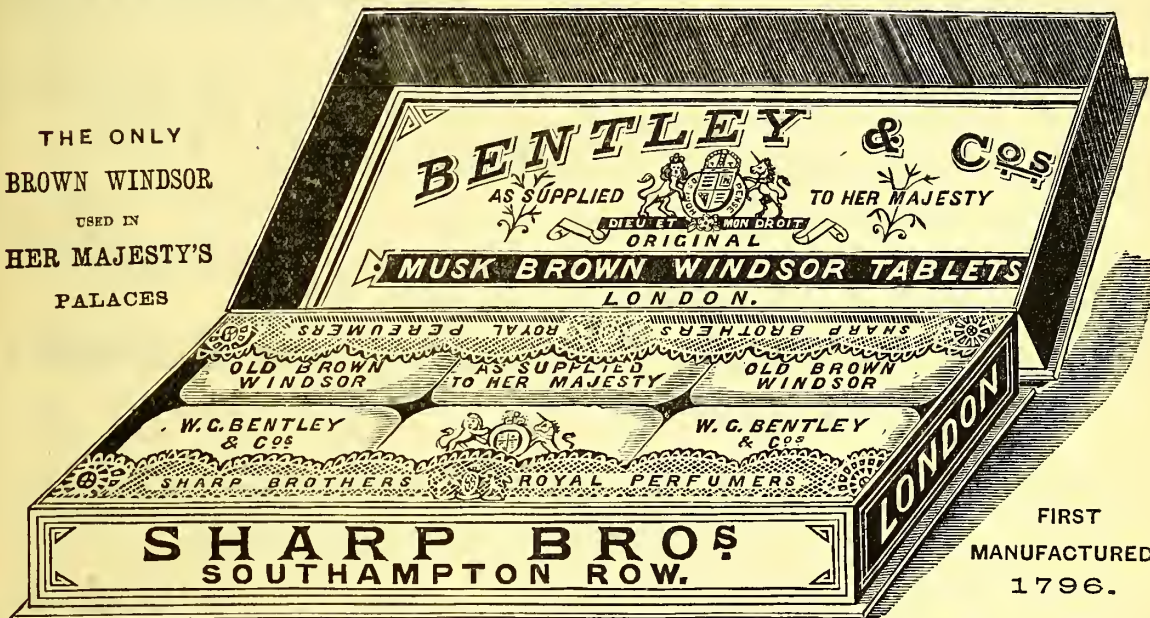
COLOGNE: January, 1884.

SPECIAL NOTICE

TO SHIPPERS, WHOLESALE DEALERS, AND THE TRADE.

SPECIALITIES WORTH ATTENTION.

THE ONLY
BROWN WINDSOR
USED IN
HER MAJESTY'S
PALACES



FIRST
MANUFACTURED
1796.

SOLD IN BOXES CONTAINING SIX SMALL TABLETS OR
THREE LARGE, 1/6 each; 12s. per Dozen Boxes.

DUCHESS MARIE BOUQUET

ADELINA PATTI'S FAVORITE PERFUME.

2s. 6d., 3s. 6d., 5s. and 10s. 6d. per Bottle; 20s., 28s., 40s., 80s. per Dozen.

*London,
46, Victoria Road, Regent's Road, N.W.
To Messrs Sharp Brothers
July 4, 1882.*

I have much pleasure in testifying that "Bentley's Brown Windsor" supplied solely by me to Buckingham Palace, was the one selected for the use of Her Majesty and the Royal Family. Its fragrant and delicate perfume combined with its palatable and excellent qualities have ensured the approbation and constant use of Her Majesty and her Court.

*John Reddard
Surgeon of the Pharmaceutical
Chemist to the Queen*

*Regent's Lodge
Kings Road
Fulham, S.W. June 15, 1882*

Gentlemen,

I beg to thank you for the sample bottle of "Duchess Marie". I shall feel much obliged if you will send me, as soon as a dozen bottles, as I like it very much.

*Yours faithfully,
Adelina Patti*

*Messrs Sharp Bros.,
2, Southampton Row,
High Holborn, London*



PRICE LIST ON APPLICATION.

SHARP BROS., 12 SOUTHAMPTON ROW, LONDON, W.C.

MARION & CO.,

22 & 23 SOHO SQUARE, LONDON, W.,

THE BEST WHOLESALE HOUSE FOR

PHOTOGRAPHIC MATERIAL.

MANUFACTURERS OF
FRENCH MOUNTS OF ALL KINDS. **COMPLETE OUTFIT FOR AMATEURS**
 (Factory at Courbevoie, Paris.) From 50/- to £50.

BRITANNIA DRY PLATES.

From their Cheapness and Excellence are in universal use.

MARION'S ALBUMENISED PAPERS.

PHOTOGRAPHIC CHEMICALS,

As Cheap as any House.

MARION'S LENSES,

For Portraits, Views, and Instantaneous Photography.

CAMERAS AND PHOTOGRAPHIC CABINET WORK.

BACKGROUND AND ACCESSORIES

For the Studio.

WORKS AT SOUTHGATE FOR ENLARGING AND PRINTING.

JUST PUBLISHED.

MARION'S PRACTICAL GUIDE TO PHOTOGRAPHY, 2/6.

THE MOST PRACTICAL AND THOROUGH BOOK ON THE SUBJECT.

SAMPLES AND LIST OF PRICES FREE ON APPLICATION.

MARION & CO., 22 & 23 SOHO SQUARE, LONDON, W.

SPECIAL NOTICE.

The price for stamping Names and Addresses on the tops of

HUNT'S BOTTLE CAPS

IS NOW REDUCED TO 4d. PER GROSS.

OF ALL WHOLESALE HOUSES, OR—

W. F. HUNT & Co., 3 to 5 Little Windmill St., London, W.

MANUFACTORY—MARSEILLES.

CHUBB'S ^{Best} SEIDLITZ POWDERS

—Full Weight—Loose, at 7s. per gross; in lift-off boxes, 7s. 6d., and in hinged boxes, 8s. 6d., per dozen.

CHUBB'S ^{Extra Scented} VIOLET POWDER

(WARRANTED PURE STARCH POWDER),

In 1d. Boxes, 6s. gross, and 2d. Boxes, 11s. gross, and in ¼-lb. and ½-lb. Packets, 10d. per lb.

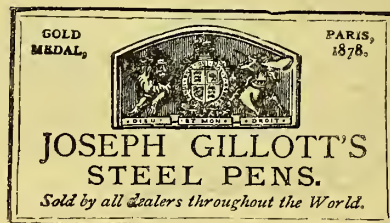
CHUBB'S ^{Prepared} FULLER'S EARTH

In 1d. Boxes, 5s. gross, and 2d. Boxes, 9s. gross, and in 3d. and 6d. ROUND Boxes, 1s. 6d. and 2s. 6d. dozen.

SUBJECT TO 15 PER CENT. DISCOUNT FOR CASH.

May be obtained through all the Wholesale Houses, or direct from
 CHUBB & CO., 29 OLD ST., LONDON, E.C.

SPECIAL QUOTATIONS FOR LARGE QUANTITIES.



INDEX TO ADVERTISEMENTS,

SEE PAGES 39, 40.

ESTABLISHED 1810.

H. BROOKS, PEEL & CO., COLLAPSIBLE TUBE MANUFACTURERS

PATENTREES AND SOLE MANUFACTURERS OF THE

PORTABLE METAL SPRINKLER STOPPER,

AND DEALERS IN

GLASS BOTTLES FOR PERFUMERS AND OTHERS.

STEAM FACTORIES:

31 Lime St., Camden Rd. (Offices), and Bartholomew Rd., Kentish Town, London, N.W.

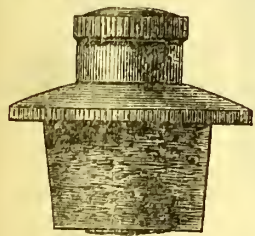
COLLAPSIBLE TUBES OF ALL SIZES.



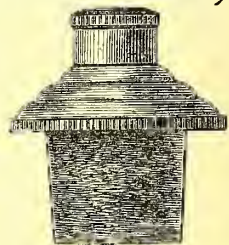
For Perfumes, Artists' Colours, Soaps, Cosmetiques, Creams, Oils, Varnishes, &c. These Tubes are inexpensive and portable, and may be applied to many useful purposes besides those above mentioned.

SOLE MANUFACTURERS AND PATENTEES OF

THE PORTABLE METAL SPRINKLER STOPPER,



With Cork fitted thereon for bottles of any size, and having apertures of various dimensions, especially adapted for Perfumes, Hair Washes, Lime and Glycerine Essences, &c. These handsome stoppers give a character and finish to the most ordinary bottles to which they may be applied. Gilt or plain; and put up if required in handsome glass lid boxes, suitable for shop counters and show cases, at moderate prices.



No. 18a.

for Bottles of all Sizes and Shapes," with the additional security it affords, that the Cap can never be entirely unscrewed, consequently it cannot be lost. It is specially effective as a Sprinkler, while giving a more prompt and copious, yet economic, supply, through the improved action of the Cap. Such combined advantages, in an article of exquisite finish, have long been desired, and it is thus submitted for general approval, and its usefulness when tried will be appreciated by all.

Illustrations, Price Lists, &c., can be had on application, or through any Wholesale House in town or country. All Orders received direct will be promptly attended to.

THE "TORSION" PATENT SPRINKLER.

The two designs, Nos. 18a and 19a, are those to which we direct special attention, as sizes being in general use; other sizes will follow promptly to meet all requirements, on which Caps with two or more holes will be introduced to meet the public taste. Particular attention is called to the latest improvement in our Patent Metallic Stopper, the "Torsion."

This New Stopper adheres to the design of the original patent, which has been universally acknowledged as an ornamental and inexpensive article for the Toilette, as possessing all the advantages of a "Permanent and Indestructible Stopper, suitable



No. 19a.

CAUTION.—All Stoppers of our Manufacture are made of Pure Tin, and have the name of H. BROOKS & CO. stamped on the under side of the rim.

All Tubes are made of Pure Tin unless specially ordered of Mixed Metal, from the smallest size up to 13 in. by 23.

"IMPERIAL"

(REGISTERED BRAND)

SOFT SOAP

IN TINS.



1 lb. each net.

2 do.

3 do.

3½ do.

4 lb. each net.

6 do.

7 do.

And Firkins &

Half-Firkins.

May be had through all Wholesale Druggists, Oil Merchants, and Drysalter, and (in wholesale quantities only) of the Manufacturers,

THE CHISWICK SOAP CO.,

CHISWICK, LONDON, W.

Makers of the "10% Carbolic," "P.B. Olive," "B B B," "B B," and other Soft Soaps.

GOLD MEDAL, CALCUTTA EXHIBITION.

Also PRIZE MEDAL at the INTERNATIONAL HEALTH EXHIBITION for SOFT SOAPS.

A FEW OF THE MANY SPECIALITIES INTRODUCED BY

BOURNE, JOHNSON & LATIMER

(SUCCESSORS TO BOURNE & TAYLOR).

ESTABLISHED 30 YEARS.

Absorbent Cotton Wool. Per lb. 2/6.**Adhesive Plaster** in tin cases, to sell at 6d. each.
Flesh Colour. Will stick without artificial heat. Per dozen, 3/6.**Antiseptic Inhalers.** On Coghill's principle. Per dozen, 16/.**Areca Nut Tooth Paste.** 12 Sixpenny size, in Counter Box, per dozen, 4/; 6 One Shilling size, 8/.**Beetle Powder.** In Tin Dredgers, to retail at 3d. and 6d. each. One or three dozen in Counter Box, 2/, 4/ per dozen.**Benzine (Perfumed).** Removes grease spots, takes away thumb marks from books, &c., makes old kid gloves equal to new, cleans artists' brushes, destroys vermin in domestic animals, &c., 4/ and 8/ per dozen.**Cachou Lozenges.** A 2 oz. Vitrified Tin Box filled with Cachous, 4/ per dozen; to retail at 6d. or 1/.**Cachous Lozenges.**

Bouquet	per lb.	2/
Peppermint	dozen	1/9

Cherry Tooth Paste. 12 Sixpenny size, in Counter Box, 4/; 6 One Shilling size, 8/ per dozen.**Eye Shades (Reading).** Self-adjusting and ventilating. Very light, 6/ per dozen; to sell at 1/.**Feeding Bottles (THE PER).** 22 patterns. Send for a detailed price list.**Floating Light (Tin).** With Reflecting Float. In boxes containing 60 lights, 4/; 120 lights, 8/ per dozen. Only needs an introduction to create a demand.**Fly Paper.** 1/9 per 100; 16/ per 1,000. In Sixpenny Books, 3/6 per dozen.**Folding Boxes.** On the American principle, for Dispensing or for Proprietary Goods, 2 oz., 4/6; 3 oz., 5/; 4 oz., 5/; 6 oz., 6/6; 8 oz., 6/; 10 oz., 6/6; 12 oz., 7/; 16 oz., 7/6; 20 oz., 8/ per gross.**Glass Pots.** Opaque, for Vaseline, Cold Cream, &c. Opal, 1/2 oz., 1/5; 1/2 oz., 1/6; 3/4 oz., 1/8; 1 oz., 1/10; 1 1/2 oz., 2/; 2 oz., 2/3; 3 oz., 2/9; 4 oz., 3/6 per doz. Opaque blue, 2d. per doz. extra.**Inexhaustible Salts.** A Watch Shape Bottle, filled with strong Ammonia, each in a box, 7/, 10/ per dozen.**Inhaler (New Pattern).** The Universal (Earthenware), to hold Hot Water, with burnt-in directions for use, with glass tubes, 18/ per dozen.**Medicated Japanese "Curl" Paper.** (As Soft as Silk.) 500 Sheets in a packet, 4/ per dozen.**Menthol.** A New Remedy for Neuralgia. Very saleable. Per dozen, 4/ and 8/.**Parchment Paper.** Very thin. Superior to Wax Papers for Wrapping Greasy Articles, or for Cold Cream Pots; and a quarter of the price, 1/ per quire. Cut to size for 1 lb., 2 lb., 4 lb. pots. Per dozen packets of 3 dozen, 4/, 6/, 8/.**Pill Coater, "Simple."** (SYMES'.) For coating small quantities of Pills with ease and perfection, 4/6 each.**Porous Plasters.**

Poor Man	per doz.	2/
Strengthening	dozen	2/
Beladonna	dozen	2/6

Respirators. 27 patterns. Retail 1/ to 10/6. Priced so as to yield half profit. Send for descriptive list.**Sanitary Paper** in a strong suspender case. Per dozen, 8/.**Seat Cushions (Waterproof).** A *sine qua non* for travellers. Folds up in a small compass for the pocket, 13/, 21/ per dozen.**"Sparadrap Agglutinatif"** (French Sticking Plaster). Always soft and pliable. Does not irritate the skin. Will adhere to a fresh wound. Contains no resin or turpentine. Does not discolour. 10d. per yard.**Sponge Bags (Check Waterproof).**

Nos. 1	2	3	4	5	6	7	8
6/6	8/	9/6	11/6	13/	15/	18/	20/

Ditto, with pocket, per dozen, 21/.

Brighton shape, with nickel fastenings, per doz., 18/, 21/, 34/.

Sponges (Honeycomb or Turkey). A Revolution in the Sponge Trade. 12 on a card, per dozen, to sell at 1d., 8d.; 2d., 1/4; 3d., 2/; 4d., 2/8; 6 on a card, per dozen, to sell at 6d., 4/; 1/, 8/; 1/6, 12/; 2/, 16/; 2/6, 20/; 3/6, 28/; 3 on a card, per dozen, to sell at 5/, 40/; 6/, 48/; 7/, 54/; 8/, 64/; 10/, 80/.**Stopper Loosener.** Boxwood, to fit any size Stopper, from a smelling bottle to a quart size, 1/ each.**Teething Pads (Agate).** Real Stone, on card of 6, 9/ per dozen.**Teething Pad (Musical).** 1 dozen on a show card, 4/ per dozen.**"The Three Graces."** (Faith, Hope, and Charity). A New One Shilling Perfume, neatly put up in boxes, containing one of each to form a set, with Patent Sprinkler, 8/; Two Shilling size, 15/ per dozen.**Thermometers.** Black, with white scales. 6 on a showy card. Per dozen, 8/6.**Throat Spray.** Glass, with Indiarubber Ball and Tube. Per dozen, 27/.**Tooth Paste.** Cherry, 4/, 8/; Arca, 4/, 8/ per dozen.**Tube Brush.** New Pattern. The Brush is in the centre of the wire, 4/6 per gross.**Tube Cleaner.** Patent Wire. Marshall's Patent. All metal. To retail at 1d., 9/ per gross.**Vagina Syringes.** Dr. Rowe's, with glass mounts, white balls, 18/; ditto, green balls, 21/; Dr. Rowe's, with elastic gum mounts, green balls, 21/ and 24/; ditto, ditto, white balls, 14/ per dozen.**Vials.** Packed in wooden boxes containing 1 gross, for safety in transit and for convenience in storage. 1/2 oz., 4/; 1 oz., 5/; 1 1/2 oz., 6/; 2 oz., 7/. Special quotations for 50 or 100 gross lots.**Watch-Shape Smelling Bottles.** 12 in a box, to sell at 6d. each. Per dozen, 4/.

WHOLESALE AND EXPORT DRUGGISTS' SUNDRIESMEN

34 & 35 CASTLE ST., HOLBORN, E.C.

Fully Illustrated Price List on application.

SANGER & SONS'

PRICE CURRENT,

WITH ADDITIONS AND ALTERATIONS,
UP TO OCTOBER 1,

OF
PATENT MEDICINES,
PERFUMERY,
LOZENGES.



OF
DRUGGISTS' SUNDRIES,
MINERAL WATERS,
SPONGES, &c.

FREE ON RECEIPT OF BUSINESS CARD.

AGENCIES OF ALL KINDS UNDERTAKEN ON FAVOURABLE TERMS.

MESSRS. SANGER & SONS beg to call the attention of the Trade to the fact that their Prices, with the best Discounts off, come out in many cases lower than the published Nett Lists of other houses. A few examples of Prices are given below.

Articles charged	4s. 0d.	come out net	3s. 5d.;	usual net prices	3s. 6d.
"	6s. 0d.	"	5s. 1½d.	"	5s. 2d.
"	9s. 0d.	"	7s. 8½d.	"	7s. 9d.
"	10s. 6d.	"	8s. 11¾d.	"	9s. 0d.
"	25s. 0d.	"	21s. 4¾d.	"	21s. 6d.
"	28s. 0d.	"	23s. 11¾d.	"	24s. 0d.

ENEMAS—HIGGINSONS.

		Subject to Discount.	Nett.
Large size, Unvarnished Brown Rubber, fitted with Bone Rectum Pipe, in cardboard box (complete dozen, 23/-)	per doz.	£1 4 0	20/6
Ditto ditto in cedar box, extra per dozen, 1/-			
Ditto ditto with Vagina Pipe and Shield, extra per dozen, 4/-			
Small Size, Green Rubber, disconnecting, with Bone Rectum and Elastic Vagina Pipes to plug, Black Shield, in slide cedar box (complete dozen, 28/6)		1 10 0	25/7½
Large size, with Bone Rectum and Elastic Vagina Pipe, both to screw on and off, Black Shield, in slide cedar boxes (complete dozen, 35/-)		1 16 0	31/2½

Special attention is called to the advantages of above, as, being made to screw on and off, are much easier to clean. Further Sizes and Prices in Catalogue.

Purchasers of Druggists' Sundries, Smelling Bottles, Hair Brushes, Combs, Sponges, Thermometers, Filters, and Boxes of all descriptions should pay a visit to our Showroom before purchasing elsewhere, in order to compare our prices and quality against other houses.

J. SANGER & SONS, 489 Oxford Street, LONDON, W.

Messrs. SANGER & SONS beg to inform the Trade that they can now supply

**FELLOW'S, DUSART'S, or
CHURCHILL'S SYRUPS**

UNSTAMPED on the following conditions:

First, that they are *only used in making up prescriptions*; if sold otherwise they must be stamped before sale.

Secondly, every order for unstamped Syrups must be written on "to be used for dispensing purposes only."

PRICES ARE AS FOLLOWS:

				NETT
Churchill's Syrup...	4/	37/	per doz. subject.	31/7½
Dusart's	2/6	26/	"	22/2½
Fellow's	½ lb.	35/	"	29/11
Do.	1 lb.	56/	"	47/10½

KEARSLEY'S WIDOW WELCH'S FEMALE PILLS.

These are universally acknowledged to be the Genuine, and Druggists may safely recommend them.

CAUTION!

The Proprietors of Kearsley's Original Widow Welch's Female Pills find it incumbent on them to caution the purchasers of these Pills against various imitations by parties who have no knowledge of their peculiar preparation, the Original Recipe having been sold to the late G. Kearsley, of Fleet Street, whose Widow found it necessary to make an Affidavit, for the protection of her property, in the year 1798. The Genuine Recipe for Widow Welch's Female Pills has been prepared by them for 97 Years! Chemists are particularly requested to remark that, as a testimony of authenticity, each bill of directions contains an Affidavit, and bears the signature of "C. KEARSLEY," in writing, also engraved on the Government Stamp, and each box is wrapped in WHITE paper.

1,000 Handbills, with Name, and 2 Tin Showcards,

Supplied with all Orders for One Dozen (13) Boxes,

PRICE 27s. PER DOZEN, subject to usual Discount.

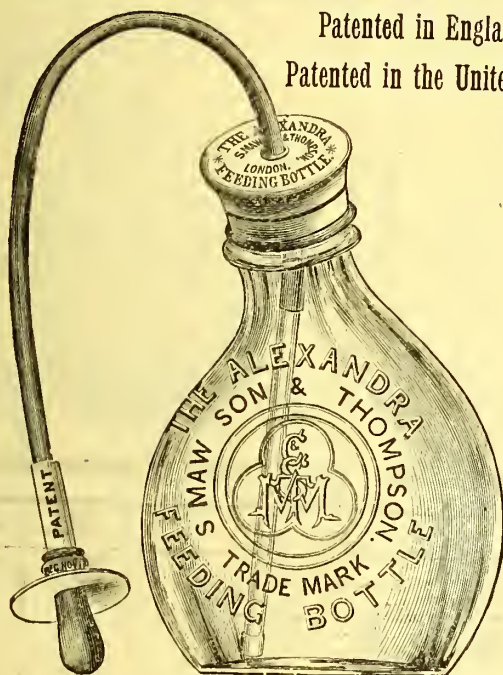
Special Quotations to Shippers and for large quantities, on application to

J. SANGER & SONS,
489 OXFORD ST., LONDON, W.

S. MAW, SON & THOMPSON'S FEEDING BOTTLES.

Patented in England, December 4, 1879;

Patented in the United States, April 27, 1880.



THE ALEXANDRA.
(Earthenware Cap.)



THE EXPORT.
(Glass Screw Stopper.)

	White Fittings.			Black Fittings.		
Alexandra, Earthenware Caps..... per doz.	—	7/6	11/-	—	8/6	12/-
Alexandra, Earthenware Screw Stoppers „	—	—	11/-	—	—	12/-
Alexandra, Glass Screw Stoppers	4/-	7/6	11/-	4/9	8/6	12/-
Export, China or Wood Top Corks	3/4	—	—	4/	—	—
Export, 2nd Quality, Wood Top Corks ...	2/9	—	—	3/6	—	—
Export, Earthenware Caps	—	7/3	—	—	8/3	—
Export, Glass Screw Stoppers	4/-	7/6	—	4/9	8/6	—

FOR FURTHER PARTICULARS SEE QUARTERLY PRICE CURRENT, PAGES 69 AND 70.

SPECIAL QUOTATIONS TO WHOLESALE BUYERS.

S. MAW, SON & THOMPSON, LONDON.

THOMPSON MILLARD'S FEEDING BOTTLES.



THE "MATER."—Screw Glass Stopper.



THE "MATER."—Tin Screw Cap.



THE "MATER."—Porcelain Cap, Gold Lines

No. in Catalogue.			White Fittings.	Black Fittings.
531, 532	The "MATER," green glass, bent neck, wood top corks, in 1 doz. boxes	.. .. .	Per doz. 3/6	Per doz. 4/-
533, 534	" " " " " " each in box	.. .. .	4/3	4/9
535, 536	" " " " " " screw glass stopper, in 1 doz. boxes	.. .. .	4/-	4/6
543, 544	" " " " " " earthenware caps, each in box	.. .. .	7/6	8/-
545, 546	" " " " " " screw glass stopper, each in box	.. .. .	7/6	8/-
558, 559	" " " " " " extra tube and teat	.. .. .	10/-	11/-
562A, 562B	" " " " " " tin screw caps	.. .. .	8/-	9/-
563, 564	" " " " " " very superior fittings	.. .. .	10/-	11/-
565, 566	" " " " " " porcelain caps, gold lines	.. .. .	10/-	11/-
570, 571	The "IMPERIAL," suitable for export, green glass, straight, wood top corks, in 1 doz. boxes	.. .. .	3/3	3/9
575, 576	" " " " " " " " each in box	.. .. .	4/-	4/9
580, 581	" " " " " " " " metal screw caps, in 1 doz. boxes	.. .. .	4/3	4/9
584A, 584B	" " " " " " " " white glass, straight, earthenware caps, each in box	.. .. .	7/-	7/6
584C	" " " " " " " " pure tin caps, each in box	.. .. .	7/6	8/-
	The "BRISTOL," green glass, bent neck, wood top corks, in 1 doz. boxes	.. .. .	3/-	3/6
	" " " " " " " " white " " " " earthenware caps, each in box	.. .. .	—	4/8

584C is one of the best lines ever introduced is put up in handsome box, with neat label.



THE "IMPERIAL."—Tin Screw Cap.

THOMPSON, MILLARD & CO.,

LIMITED

CURTAIN ROAD,

LONDON, E.C.



THE "BRISTOL."—Earthenware Cap.

NEWBERY'S

SIXPENNY "GLOVE" SMELLING SALTS,

Watch Shape, with Screw Metal Cap.

Send for a Sample Dozen.

EUCALYPTOL FOR FLIES,

In Bottles to Retail at One Shilling each.

CHOLERA CHARMS

(1d. Locketts), Three Dozen in a Box.

1 KING EDWARD STREET, LONDON, E.C.

Established 1746.

GIBSON'S

DELECTABLE JUJUBES, VOICE JUJUBES, AND GLYCERINE PASTILLES

Put up in 4-lb. Decorated Tins with Glass Lids, *TINS FREE*, are now being inquired for by buyers from all parts of the world. They are not surpassed in quality by any maker, and give entire satisfaction.

MEDICATED and HIGH-CLASS LOZENGES, of every kind.

Sent out in 2-lb. or 4lb. Bottles, Bottles Free; or in Tins, from 10 lb. upwards.

LIME JUICE TABLETS. PURE MALT TABLETS.

ACID DROPS, AND BEST QUALITY BOILED SUGARS OF EVERY KIND.

GIBSON'S ORIGINAL CHLORODYNE LOZENGES.

PENNY SUGAR WORM CAKES, suitable for either *children* or *adults*. Have an immense sale, keep in any climate, and please everybody. Manufactured by

ROBERT GIBSON, Carlton Works, Hulme, Manchester, and 1 Australian Avenue, London.

Price Lists sent on application. Our Goods can be bought through any Wholesale or Export House in London. Indents should be marked "Gibson's."



KING'S EFFERVESCENT CITRATE OF MAGNESIA

Is the BEST PREPARATION ever introduced for the use of EMIGRANTS, TRAVELLERS, AND INHABITANTS OF WARM OR TROPICAL CLIMATES.

This Citrate has been patronised by Royalty, by Her Majesty's Diplomatic Agents Abroad, and was awarded a Prize Medal at the Exhibition of 1851.

NUMBERS of the MOST EMINENT PHYSICIANS AND SURGEONS in London and throughout the kingdom use KING'S MAGNESIA for THEMSELVES and FAMILIES, and have given certificates testifying that it is THE BEST AND MOST AGREEABLE APERIENT EVER INTRODUCED. and that in ALL CASES of SICKNESS, HEADACHE, LASSITUDE, ACIDITY or IRRITABILITY of the STOMACH, CONSTIPATION, &c., &c., it can be used with the GREATEST SAFETY and BENEFIT, and as a COOLING DRAUGHT in ALL cases of FEVER it has NO EQUAL.

TESTIMONIALS have also been received from CAPTAINS OF VESSELS AND OTHERS who have made voyages to the BRAZILS and other TROPICAL PARTS, and have ESCAPED THE YELLOW AND OTHER FEVERS, while DAILY EXPOSED to the INFECTION; and attribute their EXEMPTION (when others have succumbed) to the PREVENTIVE effects of KING'S EFFERVESCENT CITRATE OF MAGNESIA; and they RECOMMEND that the Citrate should be taken by EVERY EUROPEAN wishing to VISIT or RESIDE IN SAFETY in TROPICAL or FEVER-PREVALENT CLIMATES.

A small teaspoonful of the Citrate in a tumbler of cold water makes an AGREEABLE COOLING EFFERVESCENT BEVERAGE.

Sold only in Glass-stoppered Bottles by Chemists and Druggists everywhere, and by the Sole Manufacturers and Proprietors—

BATES & CO., 1 REGENT SQUARE, LONDON, W.C., ENGLAND.

Be sure to get KING'S EFFERVESCENT CITRATE OF MAGNESIA, which will give entire satisfaction.

Silver Medal, Paris, 1878.

Philadelphia, 1876.



TRADE



MARK

A.D. 1715.



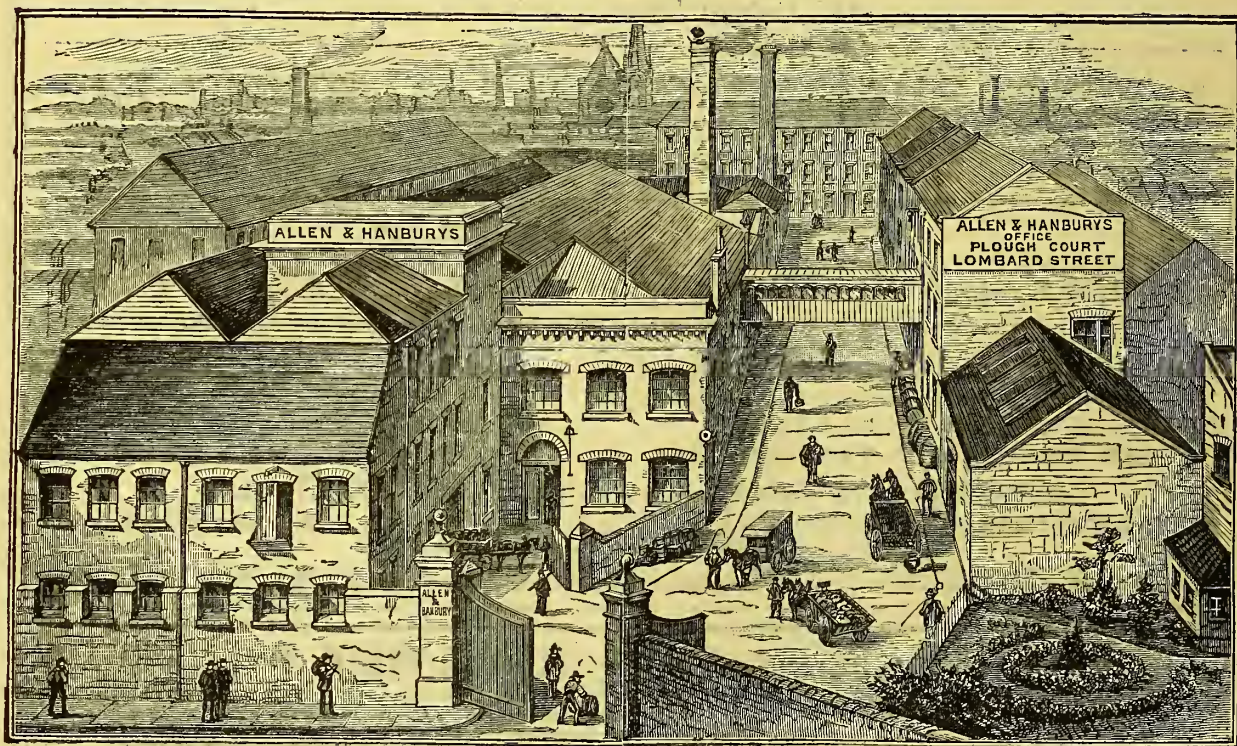
ALLEN & HANBURY'S,

WHOLESALE AND EXPORT

DRUGGISTS,

MANUFACTURING, PHARMACEUTICAL & ANALYTICAL CHEMISTS

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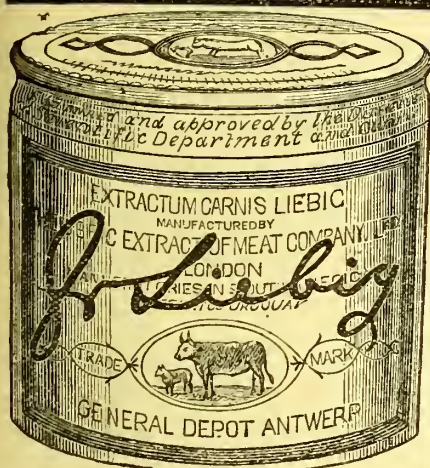
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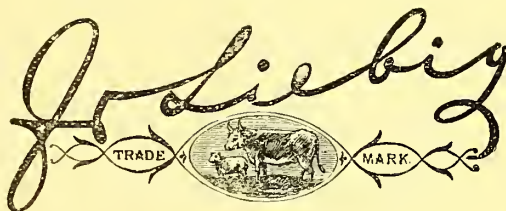
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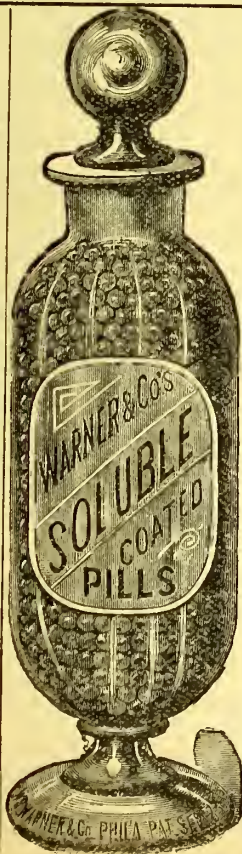
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FRANCIS NEWBERRY & SONS,
1 KING EDWARD ST., NEWGATE ST., LONDON, E.C.

ESTABLISHED A.D. 1746.

Prices are published in full in NEWBERRY'S ANNUAL CATALOGUES, to which attention is directed.



CHEMISTS' TRANSFERS.**MESSRS. ORRIDGE AND CO., CHEMISTS' TRANSFER AGENTS,**

May be consulted at their Offices on matters of **SALE, PURCHASE, and VALUATION.**

Immediate attention given to Foreign Commissions.

The Business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade.

VENDORS have the advantage of obtaining an opinion on Value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment.

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Particulars of any of the following will be sent free on application :—

1.—**LONDON, W.**—Good-class business, Dispensing and Retail and Mineral Water trade; returns, £1,700; net profit exceeds £600; good house, moderate rental; about £1,500 required.

2.—**LONDON, S.W.**—An established business; returns at present, £6 per week, increasing; Post Office attached, nearly pays rent; large double-fronted shop; price, £250.

3.—**LONDON, N.**—In consequence of the death of proprietor, two very old-established businesses are for disposal; first returns over £1,100; price, to include long and beneficial lease, £1,100; second returns over £500; price, £375. Full particulars on application.

4.—**LONDON, S.W.**—Close to Piccadilly; small select nucleus of business for disposal, suitable for a branch; the investment of about £300 required; position and fixtures good; valuation if wished.

Either of the following businesses (well known to Messrs. O. & Co.) may be purchased by valuation :—

5.—Kent	returns	£600
6.—Ipswich	"	500
7.—Midlands	"	1,500
8.—Eastern Counties	"	1,200
9.—Cathedral Town	"	nearly 2,000
10.—Gloucestershire	"	550
11.—Western Counties	"	750

12.—**NORTH OF ENGLAND.**—Very old-established Mixed business; situated in a good shipping town; returns, £3,700; good scope for increase, and well suited for the Wholesale trade if wished; the investment of about £1,200 would suffice at present. Full particulars on application.

Messrs. O. & Co. have a large number of good businesses on their Register for disposal, requiring the investments from £150 to £4,000. Purchasers wishing to enter business at the commencement of the year are requested to communicate at once, when full particulars of suitable investments will be forwarded without delay.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country; particulars free on application.

TERMS FOR VALUATION ON APPLICATION.

ORRIDGE & CO., 32 Ludgate Hill, E.C.

MIDLAND COUNTIES TRANSFER AGENCY.**F. J. BRETT,**

Trade Valuer and Auctioneer, Leicester.

MANCHESTER (SUBURB).—Good-class Retail, Prescribing and Dispensing; returns, £620; excellent opening for Dentistry; price, £450.

LONDON, N.W.—£1,700 returns; good Dispensing, light Retail, and Mineral-water trade; large shop, elegantly fitted; excellent house; net profit, £600; price £1,500, one-third of which can remain.

HULL.—Retail, Prescribing and Dispensing in leading thoroughfare; returns, £1,200; price, £550.

NOTTINGHAM.—Good-class Retail and Dispensing; recently reopened; returns, £4 week, increasing, and will develop well; price, £150. Another, General trade; returns, £450; price, £250.

YORKSHIRE.—£1,700 returns; exceedingly pretty district; good country Retail, with Wines and Spirits; at valuation of stock and fixtures, about £900.

NORTHAMPTONSHIRE.—Unopposed village Retail; capable of doing a large trade with attention; returning now over £500; a man well up in requirements of a country agricultural trade could soon do £1,000 per annum.

LIVERPOOL.—Old-established Retail, Dispensing and Prescribing; in excellent position; average returns, £800; price £500.

BRISTOL (SUBURB).—Dispensing, Retail, and Prescribing; opened about a year; returns, £300; price about £250.

LONDON, N.W.—Retail, Prescribing, and Dispensing; busy thoroughfare; returns, as Branch, £520; price £500, or offer.

LONDON, N.—Good Family Retail and Dispensing; in good position; returns, £550; price, £400; good house; net rent, £40 per annum.

F. J. BRETT, LEICESTER.

THOS. H. WAITE,

Trade Valuer & Transfer Agent.

BROADWAY HOUSE,

EALING, LONDON, W.

Estab.
1850.

MR. TRIPPIER,

Estab.
1850.

Medical Agent and Valuer, 79 Islington, Liverpool.

FOR TRANSFER.

A FIRST-CLASS Dispensing and Mineral-Water business; returning £1,700 per annum; shop elaborately fitted, and well stocked; excellent house, on long lease, at moderate rent. The whole plant will be disposed of in one lot as a going concern, including engine, machinery, van, horse, bottles, syphons, &c., &c.

L IVERPOOL.—A business of 30 years' standing; central position; doing a good class Dispensing trade; handsome fitting; select stock in splendid condition; good house at moderate rent.

L IVERPOOL.—Established 70 years; a Dispensing and Prescribing business; excellent stand; corner shop, house, &c; a suitable person liberally dealt with.

L IVERPOOL (Suburbs).—Established 20 years; Family and Dispensing business; doing a good class trade; full prices; handsome fittings; increasing locality; large premises, at low rent.

P LEASANT LOCALITY, 5 miles from Liverpool; a good Family, Dispensing, and Prescribing Business; neat shop; nearly all new fitting; good house, garden, stable, &c., at very low rent.

L IVERPOOL (near the Docks).—Established 30 years; a Prescribing, General, Retail, and Shipping Business; to be sold cheap.

M ANUFACTURING TOWN.—A Business established 20 years; doing a very profitable trade in Dispensing and Prescribing; large house, at exceptionally low rent.

S OUTHAMPTON.—An established Dispensing and Prescribing Business; S improving neighbourhood; commanding position; corner shop; handsomely fitted; favourable terms.

S OMERSET.—A General, Retail, Dispensing, and Agricultural Business; established 60 years; large house and premises.

No Commission is charged to Purchasers.

All information on application. To facilitate matters, a reference required on parties applying for the first time.

Lists of Stock for Appraisement receive immediate attention.

CHEMISTS' TRANSFERS.

Northern Medical Agency, 29 Chambers Street, Edinburgh.

M ESSRS. C. G. & T. MACKAY beg to offer their services to gentlemen wishing to Purchase or Dispose of Businesses, Valuations of Stocks, &c., for Sale. Partnerships negotiated. Locum Tenens and Assistants provided. Employers requiring Assistants, and Assistants wanting Engagements should give full particulars of their requirements. Terms of Transfer, Valuation, Registration, Fee, &c., on application.

L.D.S. DIPLOMAS

(SINE CURRICULO).

Chemists on Dental Register may be thoroughly prepared, Apply at once.

CHAS. BENNETT, Esq.

Clevedon Villas, Bronshill Road, TORQUAY.

THOS. TOMLINSON & SON,

COMMERCIAL AGENTS AND VALUERS,

41 CORPORATION STREET, MANCHESTER.

36 YEARS' PRACTICAL EXPERIENCE.

Inventories taken and Open Valuations given for Stocktaking or Transfer.

TESTIMONIALS.

F. S. Goodwin, Solicitor, Bakewell and Buxton.

Dear Sir,—I beg to enclose cheque, value —, in settlement of your account, for valuation, &c., and shall be glad to have your receipt for same.

The executors are perfectly satisfied with your conduct of the matter, and for my own part I may say that, if in a similar case I require the services of a valuer, I shall be happy to call you in.

Yours faithfully,
FRANK S. GOODWIN.

Mr. Thomas Tomlinson, 41 Corporation Street, Manchester.

J. H. Clegg, Solicitor.

15 Acres Field, Bolton, July 3, 1884.

Dear Sirs,—Re John Cunliffe, chemist, deceased, I have received your letter of 30th ult., and beg to enclose Mrs. Cunliffe's cheque for —, amount due to you for valuing, &c., and disposing of stock-in-trade of deceased. I have much pleasure in expressing, on behalf of my client, the executrix, her satisfaction with your painstaking valuation and your attention in conducting the negotiations eventually resulting in a sale of the stock, &c., and, so far as I am concerned, I am happy to concur in that expression of satisfaction.

Yours truly,
J. H. CLEGG.

Messrs. Thomas Tomlinson & Son, Commercial Agents,
41 Corporation Street, Manchester.

A VARIETY OF BUSINESSES FOR DISPOSAL.**SALE BY AUCTION.****ON TUESDAY NEXT.**

TO CHEMISTS, DRUGGISTS, FURNITURE DEALERS, BOOKSELLERS, AND OTHERS.

UNRESERVED SALE of Household Furniture, Drugs, Chemicals, Library of Medical and other books, and miscellaneous effects, No. 94 Jamaica Row, Smithfield, Birmingham. Catalogue of the useful Household Furniture, comprising metallic bedsteads, mahogany washstands, toilet glasses, secretaire, bookcase, oak chest upon chest, mahogany sitting-room furniture, rosewood lido table, canterbury, workbox, elegant marble clock, timepiece, and other clocks, fine engravings, a few oil paintings, china and glass, about 56 ounces of silver plate, personal jewellery, antique embroidered bed furniture of the date 1742. Costly surgical instruments, valuable library of medical books. The goodwill and possession of the old-established business of a Chemist and Druggist, carried on for upwards of 20 years by the late Mr. Kimberley (unless previously disposed of by private contract), excellent shop fittings and fixtures, show carboys, and the extensive stock of drugs and chemicals comprised in 350 lots, which will be SOLD BY AUCTION, by

MESSRS. GRIMLEY & SON (by direction of the representatives of the late Mrs. Kimberley), at the address as above, on Tuesday, December 16, 1884, commencing at 10.30 o'clock punctually. Catalogues to be obtained at the Offices of the Auctioneers, 40 Temple Street, Birmingham.

PARTNERSHIP.

PARTNER.—A Married Gentleman, of experience, desires an Active Partnership in an established Dispensing Business (sea coast preferred), where proprietor's age or health needs permanent help. Address, with full particulars, in confidence, to "Alpha," 80 Loughborough Road, Brixton, Surrey.

TO LET.

TO BE LET, Chemist's Shop, handsomely and elaborately fitted up in mahogany; complete with all fixtures, counter-cases, bottles, jars, and carboys, new, also black and gold labels; five rooms and cellar in house; main thoroughfare; grand opening for a respectable man; rent moderate; lease granted; can be occupied immediately. Apply, W. Edmundson, 9 Liddell Terrace, Monkwearmouth, Sunderland.

BUSINESSES WANTED.

BUSINESS WANTED, EARLY IN JANUARY.—A genuine improving Retail, Dispensing and Prescribing Business in respectable neighbourhood in or near London or South Coast, returning from £600 to £1,000, or a smaller one in first-class position would be entertained; must have a comfortable house and good lease. "Chemist," Messrs. Hodgkinsons, Stead & Treacher, Upper Whitecross Street, E.C.

BUSINESSES FOR DISPOSAL.

BRECONSHIRE.—An old-established Drug Business; through death; receipts, £410; rent, £30; price, £300 cash, or by valuation. Apply to W. Edwards, Victoria Place, Crickhowell.

AN EXCELLENT high-class Business for Sale, in the Midland Counties, under exceptional circumstances, and at a great sacrifice. Apply to T. M. W., care of Howes & Percival, Solicitors, Northampton. No agents.

A VERY old-established Chemist and Druggist's business in the Midland Counties to be Disposed of by Executors. Apply to Ventom, Bull & Cooper, 35 Old Jewry, E.C.

CHEMIST AND DRUGGIST'S, N.—RE MILWARD, DECEASED.

MR. ROBERT BATH is instructed to Dispose of the Businesses, either jointly or separately. Full particulars at the Offices, 8 St. Benet Place, Gracechurch Street, E.C.

FOR SALE.—A Chemist and Druggist's Business, in a rising watering-place near Bristol; present proprietor (who owns the premises) retiring from business on account of advanced age; a good opening for an energetic man; liberal terms to a suitable tenant. Apply, Messrs. A. & J. Warren, 24 Redcliff Street, Bristol.

BUSINESS FOR DISPOSAL.—Sheffield; in best position, and close to the Market; well and substantially fitted shop, by "Treble, London"; doing good business, and capable of considerable increase; must be sold at once. "Alpha," care of Messrs. Hearon, Squire & Francis, 5 Coleman Street, London.

HULL.—Old-established and very profitable light Retail and Prescribing, in a leading thoroughfare; returning about £600, and capable of considerable increase; satisfactory reasons for sale, and every investigation given to *bond-fide* buyer; price, £450. Apply, in the first instance, to A. T., care of Mr. Brett, Leicester.

CHEMISTS AND DRUGGISTS.—To be Let, good ten-roomed House, back entrance, double-fronted shop, in Jamaica Main Road, Bermondsey, one mile from London Bridge; rent, £65; stock and fixtures, £30; has been opened only one year, but is in continuation of a 60 years business from opposite side; late tenant's wife died. Apply to Owner, 21 Harefield Road, Brockley, S.E.

IN THE PRINCIPAL THOROUGHFARE of a market town, near London, a good Light Retail and Dispensing Business; no opposition; high prices for everything (except patents, less the stamp duty); good house; long lease; rent £50; returns £16 per week; well stocked and handsomely fitted; good opening for dentistry; price for everything, £850, £250 of which can remain. Mr. T. Willey, South Croydon.

WEST OF ENGLAND.—An old-established Chemist and Druggist Business for Disposal by arrangement, situated in the best retail thoroughfare in a good market town; large premises and shop, side entrance; rent and taxes, £35; on lease if required; this is an excellent opportunity for a young man of energy; income about £500; no agents. For further particulars, address A. B., care of Messrs. May, Roberts & Co., Clerkenwell, London.

TWO CHEMISTS AND DRUGGISTS.—For immediate Disposal, in a flourishing town in Northamptonshire, a well-fitted Chemist's Shop, mahogany counter, &c., in good condition; feeble opposition; established over ten years; good house; fair prices; no mixed trade; dispensing principally; returns might be largely increased by an energetic man; seller leaving the business through ill-health. For full particulars address 252/20, Office of THE CHEMIST & DRUGGIST, 42 Cannon Street, London, E.C.

EMPLOYERS WANTING ASSISTANTS.

A PROVINCIAL FIRM of Druggists' Sundrymen are in want of a Town Traveller; none but those who have a thorough knowledge of the trade need apply. Address, H.B., 3 Catherine Street, Liverpool.

WANTED, a Manager for Branch Business; must be good prescriber, trustworthy, and energetic; or good Junior treated with. Address, A., care of Messrs. Hearon, Squire & Francis, 5 Coleman Street, London.

AN experienced Assistant is required for a good class Dispensing and Mixed trade in the South of Ireland; a fair salary given. J. Laird & Co., Limerick.

TWO CHEMISTS' ASSISTANTS.—Wanted, at once, a thoroughly competent Unmarried Assistant, for Drug Stores; must be active, energetic, and conversant with a large trade. Apply, by letter, stating age, experience, and salary required, to H. J. R., care of Fergie & Turner's Advertising Offices, 21 Queen Victoria Street, E.C.

ASSISTANTS WANTING SITUATIONS.

TRAVELLER.

TO WHOLESALE CHEMISTS, DRUGGISTS, SUNDRYMEN, OIL AND COLOURMEN, OR HAIR AND FANCY BRUSH MANUFACTURERS.

A GENTLEMAN having a large connection with Chemists, and covering the West of England, Midlands, South-East and Eastern Counties, will be open to Represent a First-class Firm at the beginning of the year. 262/35, Office of the CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

M R. S. SMITH, 4 Derby Terrace, Newfoundland Road, Bristol, takes Occasional Confidential Duty during absence or illness.

Q UALIFIED ASSISTANT wants employment during winter as Dispenser or otherwise. A. P. S., 34 Bridge Street, Cambridge.

A S ASSISTANT or JUNIOR; good reference; six years' experience; London preferred. F. T. Budd, care of J. Foster, Druggist, Collumpton, Devon.

Y OUNG MAN (21) requires situation; several years' experience in Light and Mixed trades; good dispenser, and able to extract teeth; height, 5 ft. 6 in. Address, L. G. Chesterton, 46 Hampton Street, Birmingham.

C OMMISSION.—To the Wholesale Trade.—Traveller calling on Chemists and others requires another Commission. 265 23, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

C HINA (North China preferred).—Wanted, a Situation of Trust as Manager, or otherwise, or Dispenser to Hospital; Minor qualification; first-class references; in twenty-sixth year. First communication address to Z., care of Messrs. Barron, Harvey & Co., Giltspur Street, London.

MISCELLANEOUS.

T O CHEMISTS AND DRUGGISTS.—Advertiser, having bought a large consignment of Pill and Powder Boxes (cardboard), will send samples and prices on application. Apply, A. T., 9 Pentonville Road, London, N.

M ECHANICAL DENTISTRY FOR THE TRADE.—Artificial Teeth on vulcanite (inclusive of teeth, rubber, and dental alloy wire), 1s. 6d. per tooth; style and fit guaranteed; terms cash. J., 14 Queen's Terrace, St. John's Wood.

AGENTS WANTED.

T O CHEMISTS.—One Chemist in every town of the United Kingdom Wanted, as Special Agent for Crossswaite's Occult Lozenges, for Colds, Coughs, Bronchitis, Asthma, Whooping-cough, &c.; liberal terms to those who will push the sale. Crossswaite's Occult Lozenges have been before the public nearly 50 years, and are a most valuable remedy. For particulars, address Crossswaite & Co., 73 Ludgate Hill, London.

"JUST WHAT'S WANTED."

"GLYCERINE CREAM," the Perfection of Toilet Requisites, without doubt the most elegant, useful, and saleable article any Chemist can introduce, being vastly superior to, and half the price of, glycerine; it creates instantaneously a permanent softness to the skin, is devoid of stickiness, and sweetly perfumed; when once introduced its sale is certain. "Bronchelixir" (a Brompton Hospital recipe concentrated), most excellent preparation for bronchitis and all diseases of the respiratory organs; one dose will prove its worth; invaluable for simple colds, pleasant taking, and safe. "The Canadian Cone" is a certain remedy for chilblains, as one trial will prove; cleanly and agreeable. "Corn Eradicator," a decided improvement on the old form with salicylic acid, &c.; cheaper produced, and decidedly more active; contains iodine. "Toothache Remedy," cures nine cases out of ten; not injurious to other teeth; instant action; best remedy out. Recipes, 1s. 1d. each; three for 2s. 6d.; post free, with full instructions. T. Brooks, Chemist, Louth, Lincolnshire. See advertisement in Exchange Column. N.B.—Detailed list free.

ADVERTISERS' AND BUYERS' REFERENCE LIST.—(Continued from page 40.)

Sheep Dip
Biggs
Cooper

Shop Fitters
Bowling
Bygrave
Howlett
Lemaitre
Tomlinson
Yates

Soap (Soft, &c.)
Brecknell (Skin & Saddl'g)
Chiswick
Thorogood (Saddle)

Soda Bicarbonate
Gaskell, Deacon & Co.

Spectacles
Darton

Strychnine
Whiffen

Spirit, Pure and Methylated
Burrrough (Pure & Meth.)
Harvey & Co. (Meth.)
Jones (Methyl.)
Macnair, A., & Co. (Pure)

Sponge
Kent, G.
Kiriacos & Co.
Lynch & Co.
Moore, A. & F. H.
Peterson

Stamps
Baddelley (Metal & Rubber)
City Rubber Stamp Co.
Fleming & Co.

Starch
Critchley (Gloss)
Harrop (Gloss)
Mumford (Powder)

Stoppers.
Brooks, Peel (Sprinklers)
Vane, A. B. (Aer. Water)
Valley

Surgical
Bailey
Bourjeaud
Haywood
Lindsey
Lloyd (Birmingham)
Poeck Bros. (Water Bed)
Savar

Syphons
Barnett & Foster
British Syphon Co.
Gueret
Idris Manufacturing Co.

Thermometers
Darton

Trusses
Bailey
Bourjeaud
Colwell
Haywood
Lindsey

Maw, Son & Thompson, Philadelphia T. Co.
Savar
Seely, W. A.
Seely

G R E A T C L E A R A N C E S A L E, F O R S T O C K T A K I N G.—50 crates superior medical bottles, all sizes and shapes, 3-oz. 6s. 6d., 4-oz. 6s. 6d., 6-oz. 7s. 6d., 8-oz. 7s. 6d., gross; 190 blue earthenware shop jars, 4 lbs. 30s., 3 lbs. 22s., 2 lbs. 14s., 1 lb. 7s. 6d., ½ lb. 5s. 6d. doz.; 28 lb. tins pure extractum carnis, 3s. 9d. lb.; 3 casks 1-oz. upright gally pots, 4s. gross; 2-oz. fluted pomade bottles, 6s. gross; mahogany-top counter, 9 feet long, consisting of 4 zinc-lined bins, 24; small black tents, 5s. 6d. gross; superior bent feeders, black fittings, 28s. gross; 3 cwt. black tubing, 8s. 6d. lb.; 190 gross 1-oz. vials, 3s. 7d. gross; 1-dr. pill-boxes, 4d., 2-dr. 5d. gross; Goodyear's enemas, 18s. doz.; selditz deny, 7s. 9d. ream; 190 verified glass measures, 1 oz. 7s., 2-oz. 8s., 4 oz. 11s., 10-oz. 14s., 20-oz., 19s. doz.; 16 5-gr. 24-pill machines, 16s. 6d. each; 29 French counter scales, 2-lb. 13s. 6d., 4-lb. 16s. 6d., 10-lb. 22s. pair; 120 pairs circular-jointed tooth forceps, all kinds, 4s. 3d. pair; vaccination shields, 2s. doz. Simcock, Guildford Street, Leeds.

SPARKLING FROST,

FOR CHRISTMAS AND CHURCH DECORATIONS.

In PACKETS, 6d. and 1s. WHOLESALE, 3s. 6d. and 7s.

DIAMOND POWDER, FOR THE HAIR.

In PACKETS, 6d. and 1s. WHOLESALE, 3s. 6d. and 7s.

The above delivered free in dozens for cash.

CUBLEY & PRESTON, Chemists, 4 High St., SHEFFIELD.

FRENCH MUSTARD LEAVES

OF SUPERIOR QUALITY, ATTESTED BY NUMEROUS TESTIMONIALS.

100 leaves	..	6/-	6d. packets per doz.	2/8
50	..	3/3	1s.	5/-

Sent CARRIAGE FREE TO ALL PARTS of the United Kingdom by C. C. GUIHÉRY, 157 ASYLUM ROAD, LONDON, S.E.,

On receipt of Postal Orders and Postage Stamps.

SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

CORN & BUNION EXTERMINATOR.

REGISTERED.

This Instrument effects a painless cure for Corns, Bunions, Warts, Hard and Sealy Formations, &c.

Wholesale terms upon application. Price, 1/ each; post free, 13 stamps. Testimonials can be seen, or operations performed in peculiar and difficult cases, at C. & J. P. GARDNER'S, Chiropradists, Inventors, and Manufacturers, Kendal. Also Makers of Metallic Ferret Muzzles. Sample sent, post free, nine stamps. Agents wanted abroad.

Wholesale Agents who stock above—Messrs. BARLOW & SON, MAN' SON & THOMPSON, London; GODDALL, BACKHOUSE & CO., Leeds.

T O CHEMISTS AND DRUGGISTS in want of a valuable and paying addition to an established business.—Wanted in each town (where not represented) one **SOLE BUYING AGENT FOR CIBIL'S FLUID EXTRA-TOF-BEEF**, which commands large sale where introduced, and is acknowledged as the best value and quality in the market, exceeding all other Fluid Extracts of Beef. Counter Bills, Window Transparencies, &c., provided. Liberal terms to leading men only, references required.

Address—Edward Weher, Wholesale Agency, 131 Wool Exchange, Coleman Street, London, E.C.

This Extract was awarded a Silver Medal at the Health Exhibition, 1884, being the only Fluid Extract of Beef which obtained an award.

BRONZE POWDERS, GOLD LEAF, CARMINE, &c.

Extra Brilliant Durable Bronze for Gold Writing and Fine Work, 24/- per lb. Ordinary Bronzes, Gold, Copper, Silver, and every other Colour at Low Prices. FINEST CARMINE, 2/6 oz., 30/ lb.; No. 2, 2/ oz., 24/ lb.; No. 3, 1/6 oz., 16/ lb.

Finest Bismark, 3/6; Magenta, 6/; Violet, 6/; ANILINE DYE COLOURS.—Black, 8/; Scarlet, 6/; Red, 10/; Maroon, 4/ per lb.; and all other Colours.

ENGLISH VERMILLION, all Fine Colours, GUMS, GLUES, &c.

DEEP & LEMON GOLD LEAF, SILVER LEAF, DUTCH METAL, IMITATION GOLD.

Prices on application. On receipt of cash or reference pound of Aniline, Carmine, or Bronze will be forwarded on approval.

G. MORRIS, 22 PARADISE STREET, FINSPUR, LONDON, E.C.

Tea Kangra Valley (Indian) Walker & Dalrymple	Veterinary Cooper, J. (Lard) Corner Day, Son & Hewitt Gabriel & Troke James, R. J. James, R. S. Spratts	Wholesale and Export Druggists Allen & Hanbury Balls Barron Bieber (Hamburg) British Chemists & Druggists' Trading Association Burgess Burgoyne Christy, T., & Co. Clay, Dodd & Co. Cocking & Co. Corbyn Evans, Lescher Evans, Sons Gabriel & Troke Harker, Stagg & Moss Herrings & Co. Hewlett Lennon, B. G., & Co. Oldfield, Pattinson Symes Woolley, J., Sons & Co. Zinc Oxide Harris
Vacuum Pans Brinjes & Goodwin	Vinegar-making. Rothermel's Machine Waters, David & Co. Butler, McCulloch Robinson, B. (Cone) Raynaud (Rose, Orang Fl)	
Valuers Brett Gadd Gledhill Orridge Taylor & Co. Trippier Vizer Waite	Wax Cocking (Japan) Fink & Co. (Bees)	
Varnishes Jackson Sanderson Williams, M. (Knotting)	Wines and Spirits Goodall (Quinine) Hirst, Brooke (Quinine) Lamb & Watt (Orange) Robinson, B. Woodhams	
Vermin-killers Barber Battley Gulley Hunter Sanford (Rat Poison)	Wood Stains. Jackson, T. S., & Sons	


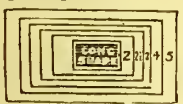




IMPORTANT TO PHYSICIANS, SURGEONS, & CHEMISTS.

ROYAL BALSAMIC

PLAISTERS

MANUFACTURED BY WILLIAM MATHER,

Are manufactured of the same kind of ingredients as those sanctioned and ordered by Dr. Andrew Smith, Director-General of Her Majesty's Army and Navy Ordnance Medical Department, for the use of the Soldiers and Marines in Scutari Hospital.

LEATHER PLAISTERS.	No.	Full Size of Leathers.	Retail Prices.	Per doz.	Royal Balsamic Plaster.	Cod Liver Oil.	Plain Plaster.	Emp. Roborans or Calefaciens	Emp. Belladonna. No. 1.	Emp. Belladonna. No. 2.
		Inches.	d.		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Heart Shape 	1	3 x 4½	1 size.	"	0 8	0 8	0 8	0 8	1 4	1 0
	2	4½ x 6	1½ "	"	1 0	1 0	1 0	1 0	2 0	1 6
	3	4½ x 7½	2 "	"	1 6	1 6	1 4	1 4	2 8	2 0
	3½	5½ x 7½	3 "	"	2 3	2 3	2 0	2 0	4 0	3 0
	4	6½ x 8½	4 "	"	3 0	3 0	2 8	2 8	5 4	4 0
	5	8 x 9½	6 "	"	4 6	4 6	4 0	4 0	8 0	6 0
Long Shape 	1	2½ x 4	1 "	"	0 8	0 8	0 8	0 8	1 4	1 0
	2	4½ x 6½	2 "	"	1 6	1 6	1 4	1 4	2 8	2 0
	2½	4½ x 8½	3 "	"	2 3	2 3	2 0	2 0	4 0	3 0
	3	5½ x 9½	4 "	"	3 0	3 0	2 8	2 8	5 4	4 0
	4	6½ x 11	6 "	"	4 6	4 6	4 0	4 0	8 0	6 0
	5	7½ x 14½	8 "	"	6 8	6 8	6 0	6 0	12 0	8 0
Oval Shape 	1	4½ x 6½	2 "	"	1 6	1 6	1 4	1 4	2 8	2 0
	2	6½ x 8½	4 "	"	3 0	3 0	2 8	2 8	5 4	4 0
	3	7½ x 9½	6 "	"	4 6	4 6	4 0	4 0	8 0	6 0
Saddle Shape 	1	6½ x 12½	6 "	"	4 6	4 6	4 0	4 0	8 0	6 0
	2	7 x 15	8 "	"	6 8	6 8	6 0	6 0	12 0	8 0
	3	8 x 16	12 "	"	8 8	8 8	8 0	8 0	15 6	12 0
Wrist 	1	3 x 10½	3 "	"	2 3	2 3	2 0	2 0	...	...
Knee 	2	4½ x 15	6 "	"	4 6	4 6	4 0	4 0	...	...

BREAST PLAISTERS.		No.	Size of Leather	Retail Prices.	Per doz.
				d.	s. d.
Emp. Plumbi, for Ladies' Breasts		1	Diam. 6½ in.	4 size	2 8
Emp. Plumbi, for Ladies' Breasts ..		2	" 7½ "	6 "	4 0
ditto spread on Chamols ..		1	" 6½ "	" "	4 0
ditto ditto ..		2	" 7½ "	" "	6 0

BREAST PLAISTERS.		No.	Size of Leather	No. 1 Quality. Per doz.	No. 2 Quality. Per doz.
				s. d.	s. d.
Emp. Belladonna, for Ladies' Breasts		1	Diam. 6½ in.	5 4	4 0
ditto		2	" 7½ "	8 0	6 0
ditto spread on Chamols		1	" 6½ "	8 0	6 0
ditto ditto		2	" 7½ "	12 0	9 0

HOSPITAL PLAISTER, on Black Cloth, 16 in. wide, doz. yds. 8/0
 " " " on White " " " " 8/0

Every other description of Plaster used in Pharmacy or Private Formule
 spread on any material, to suit any climate.

PLAISTERS, SPREAD.—Prices per Dozen Yards.
 16 Inches in width.

NAME	Glazed Cloth	Unglazed Cloth	Linen	Swans-down	Mole-skin	Skins of Leather
Emp. Aohesivum Opt.	4/0	5/6	12/0	12/0	21/0	4/0
" Adhesivum	3/6	..	..	..	..	..
" Ammon. c. Hydrarg	16/0	..	..	30/0	36/0	5/6
" Antim. Pot. Tart.	10/0	..	..	24/0	30/0	4/0
" Belladonna	18/0	20/0	27/0	27/0	36/0	5/6
" Calefaciens	11/0	12/0	15/0	15/0	24/0	4/6
" Cerat Saponis	8/0	9/0	14/0	14/0	24/0	4/6
" Dreadnought	9/0	10/0	14/0	14/0	24/0	4/6
" Elemi	9/0	10/0	14/0	14/0	24/0	4/6
" Ferri	9/0	10/0	14/0	14/0	24/0	4/6
" Galbani	14/0	..	..	24/0	30/0	4/6
" Hydrarg.	14/0	15/0	18/0	18/0	27/0	4/6
" Iodine	16/0	..	..	30/0	36/0	5/6
" Opil	18/0	20/0	27/0	27/0	36/0	5/6
" Picis Co.	11/0	12/0	15/0	15/0	24/0	4/6
" Plumbi	5/6	6/6	12/0	12/0	21/0	4/0
" Potass. Iodid.	16/0	..	..	30/0	36/0	5/6
" Resine	5/6	6/6	12/0	12/0	21/0	4/0
" Roborans	6/0	7/0	12/0	12/0	21/0	4/0
" Saponis Alb.	5/6	6/6	12/0	12/0	21/0	4/0

MANUFACTURED BY W. MATHER,
DYER STREET, HULME, MANCHESTER, ENGLAND.

PRICE LISTS SENT ON APPLICATION.

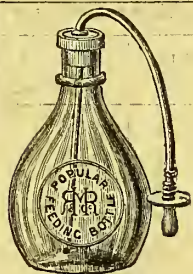
London Wholesale and Export Agents: Messrs. MACE & HALDANE, 77 Milton Street, London, E.C.

MAY, ROBERTS & CO.,

9 CLERKENWELL ROAD, LONDON

(Three Minutes' Walk from Aldersgate Street Station).

CATALOGUE of Druggists' Sundries, Patent Medicines, &c.,
sent post free on application.

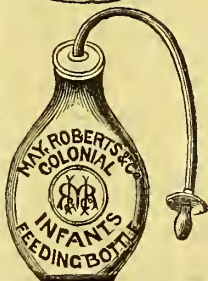


FEEDING BOTTLES,

Green Glass Bottles, Boxwood-topped Corks, with Best White Rubber Fittings.

"THE POPULAR" ... 23/5 per gross.

Packed in One-gross Casks (Cask free).



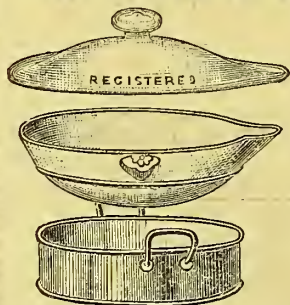
"THE COLONIAL" ... 25/5 per gross.

Packed in One-gross Casks (Cask free).

The above, with White Glass Bottles, 2/- per gross extra.

If with Black Rubber Fittings, 4/- per gross extra.

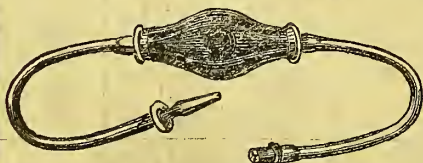
"MAY-ROBERTS" WATER BATH. REGISTERED.



This Water Bath will supply a long felt want amongst Chemists and Perfumers, where small quantities of materials have to be dealt with.

The old form of Water Bath necessitates the use of a second vessel for pouring the melted Pomade, Cream, or other substance into the bottles or jars in which they are sold. In the "**MAY-ROBERTS**" Water Bath the earthenware bowl can be lifted out of the tin containing the boiling water, the process of cooling being thereby very much expedited, and the contents can be poured into the bottles or jars direct from the bowl. The Bath is also supplied with an earthenware cover. 5-pint, 5/6 each.

HIGGINSON'S ENEMAS.



BEST Quality Rubber—Green, Black, or White—complete with Vagina Pipe and Shield per dozen **26/3**

Ditto, **Disconnecting** " **27/3**

SECOND Quality—Grey Rubber—complete with Vagina Pipe and Shield ... per dozen **18/6**

5% discount on £5 worth, with or without other "Sundries."

NO TRAVELLERS EMPLOYED. Buyers are therefore spared their expenses.
COMPARE OUR PRICES.

EXCHANGE COLUMN.

TERMS.—Announcements are inserted in this column at the rate of one halfpenny per word, on condition that name and address are added. Name and address to be paid for. Price in figures counts as one word.

If name and address are not included, one penny per word must be paid. A number will then be attached to the Advertisement by the Publisher of THE CHEMIST AND DRUGGIST, and all correspondence relating to it must be addressed to the "Publisher of THE CHEMIST AND DRUGGIST, Colonial Buildings, Cannon Street, London, E.C.," the envelope to be endorsed also with the number. The Publisher will transmit the correspondence to the advertiser, and with that his share in the transaction will cease.

Dental and Surgical.

Set of seven-tooth forceps; cheap, 16s. J. Stewart, Chemist, Grantham.

Maw's Chapman's 8-inch spinal ice-bag; used twice. Yates, Chemist, Swinton, Manchester.

Dental chair for disposal (Ash's catalogue, 8); sliding-seat, falling back and movable head-rest; in good condition; cost 11*l.* 11*s.*; will take 7*l.* 10*s.* Apply, M. Alexander, L.D.S., 6 Seymour Street, Liverpool.

Genuine Morrison dental engine, with straight handpiece, two right-angle ditto, and 60 drills, burs, &c., all in working order; cost 20*l.*, cash 6*l.*; surplus stock of finest dental rubbers—black, orange, medium, and pale, 8*s.* per lb., cash. Mr. Hatch, Surgeon-dentist, Clifton, Bristol.

Drugs and Chemicals.

About 14 lbs. Howard's pot. iod., at 10*s.* 6*d.* lb. Smith, High Street, Newport (Mon.).

20 lbs. finest picked gum arabic, 1*s.* 6*d.* lb.; sample sent. H. Jackson, Prospect Road, Walthamstow.

Quinine, 2 4-oz. bots. (Howard's), 4*s.* oz., and other drugs; surplus stock removed from branch; cheap; list sent. 268/23.

A lot of Schieffelin's (New York) coated pills to dispose of, cheap. Wimsurst, Chemist, Rochester.

Optical.

About one and a half gross spectacles, by good maker, at half cost price; various qualities; giving up agency through press of business. 269/3.

Offers wanted for several dozen Chemists and Druggists' Optical Association spectacles; 5 gross Fardon's penny fire-lighters; 2 nests mahogany-fronted drawers, 9 ft. and 5 ft.; 8-ft. mahogany-top counters. Birkbeck, Chemist, Lincoln.

Proprietary Articles.

Myer's Royal cattle spice, fresh, in good condition; what offers? 254/37.

Towle's chlorodyne jujubes, 3*s.* 6*d.* and 6*s.* 6*d.* doz.; clean; other Patents equally cheap. Elmhitt, Horncastle.

$\frac{1}{2}$ doz. Rossiter's hair restorer; $\frac{1}{2}$ doz. 1*s.* 1*d.* Marshall's cooling and purifying pills; 1-12 doz. 7*d.* ditto; 1 doz. 2*s.* 9*d.* Hall's chest healers; $\frac{1}{2}$ doz. 1*s.* 1*d.* ditto; $\frac{1}{2}$ doz. 1*s.* 1*d.* Woodward's patent herbal pills; 5-12 doz. 7*d.* ditto; $\frac{1}{2}$ doz. 1*s.* 1*d.* Durant's herbal pills; $\frac{1}{2}$ doz. 1*s.* 1*d.* Holden's tasteless pills; 1 doz. 1*s.* 1*d.* Dr. Thomson's universal pills; all clean; no reasonable offer refused. Dyson, Chemist, Bacup.

Six 1*s.* 1*d.* Holroyd's infants' preservative; 5 1*s.* 1*d.* Holroyd's horchound cough balsam; 7 1*s.* 9*d.* Woodcock's rheumatic mixture, and 1 2*s.* 9*d.*; 2 2*s.* 9*d.* Woodhead's rheumatic mixture; 3 2*s.* 9*d.* Vicar's anti-lactic, and 1 4*s.* 6*d.*; 1 4*s.* 6*d.* Dr. Pierce's medical discovery; 2 5*s.* 6*d.* Thompson's electric life drops; 1 2*s.* 9*d.* Hammond's pain paint; 1 1*s.* 1*d.* Kay's infants' restorative; 1 2*s.* 9*d.* Henry's calcined magnesia; 8 7*d.* Prichard's teething powders; 4 1*s.* 6*d.* Brooks' Arabian foot biscuits, and 5 2*s.* 9*d.*; 2 2*s.* 6*d.* Rook's cod-liver oil; the lot for 2*l.*, or any of them for half retail price, or offers in exchange. S. Parker, 360 Leeds Road, Bradford.

Two boxes Clarke's B41, 5*s.* 6*d.*; two Cuff's fly oils (soiled), 1*s.* 6*d.*; male urinal (Maw's fig. 6), slightly soiled, 6*s.* 6*d.* S. Richardson, Norton Road, Stockton-on-Tees.

Apparatus.

B cell-metal mortar and pestle; weight 21*½* lbs.; offers. Jones, Chemist, Treherbert.

One 15-gallon enamelled-iron pan, with food; 1 8-gallon ditto, with gasfittings (Tring's) complete. Wiggan, Ipswich.

Set of metric volumetric apparatus, 7*s.* 6*d.*; "Enterprise" tincture-press, nearly new, 7*s.* 6*d.* Brown, Amptill.

For sale, two patent apparatus for drawing and measuring oils or petroleum, by Dale & Co.; very handsome, and cleanly in use; very cheap; sketch sent. Orchard, Chemist, Ebbw Vale.

For sale, one of the London and General Water Purifying Company's No. 2 filters, for large cistern; suitable for aerated-water manufacturers; cost 2*l.*; price 1*l.* Orchard, Chemist, Ebbw Vale.

Educational.

Botany—The indigenous official plants, 6*s.*; wild flowers, according to quantity, all this year's growth, beautifully mounted, &c. Higginson, Newferry, Birkenhead.

Set of illegible autograph prescriptions (original), 2*s.* 6*d.*, as presented to the Pharmaceutical Society of Ireland for their examinations; 30 prescriptions (catch and difficult) given to dispense at Minor during past 12 months, 2*s.*; 50 questions asked of successful students at last Minor, 1*s.* 1*d.*; lot of cheap, almost new, books; stamp for list. Saunders, Medical Tutor, 6 Rochester Square, N.W. (Note change of residence.)

Literature.

Will post *Pharmaceutical Journal* Monday night for 2*s.* 6*d.* quarter. Markham, Chemist, Reigate.

Squire's "Companion," 8th edition, new; highest offer accepted. Higginson, Newferry, Birkenhead.

Chemist and Druggist for 1879, 1880, and 1881; half price, or exchange saleable patents. Butler, Chemist, Tunbridge Wells.

Gerard's "Herbal," Hunter's Tableau Gravid Uterus; Roberts', Murchison's, Guthrie's, Swain's, Jackson's, Dixon's works, and others. Presley, Chemist, Bristol.

Muspratt's "Chemistry of the Arts and Manufactures," last edition, bound in half morocco, and marble edges, 2 vols. 50*s.*, cost 74*s.*; Parrish's "Practical Chemistry," 2nd edition, as new, 7*s.* 6*d.*; Pereira's "Materia Medica," by Bentley and Redwood, 12*s.*; Tanner's "Practice of Medicine," 2 vols., 15*s.*; Milne's "Midwifery," 5*s.* A. Clements, Cootchill, co. Cavan.

Soda-water Plant.

Second-hand soda-water plant—several in stock. Address, Bratby & Hinchliffe, Sandford Street, Ancoats, Manchester.

Soda-water Plant.—Barnett & Foster, fig. 2, No. 4, together with gasometer and generator, very little used; also bottling-post, with syrup-pump (Rose's), syphon-filter (Barnett & Foster), original cost, 73*l.*, price complete, 40*l.*, or separate. Benjamin Baker & Co., Jersey.

Barnett & Foster have some second-hand soda-water machinery of their own for sale. Apply, 26*½* Eagle Wharf Road, Hoxton, N.

Soda-water machine, iron frame, 1*½* pump, 3-gallon cylinder, gauges, flywheel, pulley, handles, lead generator, copper gasholder, oak tub, one turnover filling-machine, pipes, spanners; working order, tested, second hand; 1*l.* 1*s.* per month, 24 in number; to make 400 dozen per day. Particulars, N. G. Wilcocks, Bath, Somerset.

Shop Fittings.

Two counters, two sets drawers and shelving, show-bottles, store-bottles, shop-rounds, counter-cases. Insull, Chemist, Hanley.

A varied stock of pharmaceutical preparations, prepared by first-class firms, many of which have not been opened, for sale, at 20 per cent. below makers' price, for cash, proprietor having no further use for same; apply for list. 269/31.

Second-hand Fittings.—About 25-foot druggist wall-fittings, 12-foot wall-case, window enclosure, dispensing-screen, desk and case, cigar case, four carboys, two specie jars and stands, drug-scales, 14 dozen bottles and pots; 38*l.* Hawke & Son, London.

Forty-eight 20-oz. wide-mouth shop-rounds; 18 12-oz. ditto, ditto; 50 20-oz. narrow-mouth ditto; 30 12-oz. ditto, ditto; 12 20-oz. blue syrup bottles; 1 Maw's No. A29 paper-stand; 1 Maw's No. 244-grain pill-machine; offer wanted for the lot. R. Ault, Whittington Moor, Chesterfield.

Second-hand Glass, &c.—Two specie jars, arms, covers, 21 in., and stands, 3*l.*; 4 specie jars, scrolls, covers, 28*½* in. high, and plinths, 30*s.*; 33-gallon ditto, and 1 2-gallon, flat front, and stands, 27*s.* 6*d.*; 2 3-gallon cylinders, 10*s.*; 15 1-lb. blue pots, and 55 stoppered rounds, no labels, 38*s.* Hawke & Son, London.

Great bargains, 1,200 gold labelled shop jars, all sizes, as fig. 13 Maw's; earthenware sundries, as 17, 18, 21, 30, 34, 37 Maw's; graduated stamped glass measures, all sizes; 800 shop bottles, all sizes; 200 engraved acid bottles, all sizes; quantity lozenge and jujube jars carboys, spice jars, glass percolators, and every description of fixtures or utensils required by the trade. Lloyd Rayner, 46 De Beauvoir Crescent, Kingsland, London, N.

The fittings of a chemist's shop, consisting of handsome mahogany counter, show-cases, counter-cases, and shelves for displaying goods; Maw's fig. 1 show-jars, pear-shape carboys, lozenge show-jars, as fig. D; shop-bottles, 60, 40, 20, and 10 oz., wide and narrow mouth; also a wall or window fitting, 9 ft. 4 in. long, 6 feet high, combining a sponge-case in centre of two seats covered in leather; show-cases with six glazed doors above, and seven drawers under seats, and sponge-case; three nests mahogany-fronted drawers, gold-labelled; send stamp for descriptive list, &c. Moon, Chemist, Cheltenham.

Shop drawers, mahogany, or stained mahogany fronts, with gold or glass labels, &c., in nests, all lengths, as A 79, 80; or complete fittings, as A 82, 83, 84, 85 Maw's; 20 retail and dispensing counters, all sizes, as A 61, 62, 63, 64 Maw's; quantity wall cases, all sizes; dispensing cases and screens, 3 ft., 3½ ft., 4 ft., 4½ ft., 5 ft., 6 ft., 7 ft., 8 ft., and 10 ft. long, as A 54, 55, 56 Maw's; upright counter cases with and without desks; upright cases with mirror backs; dispensing screens with mirror centre and a case at each end, all sizes; quantity flat bent counter cases, all designs and sizes. Lloyd Rayner, 46 De Beauvoir Crescent, Kingsland, London, N.

For sale.—A range of 66 second-hand drawers, painted mahogany, new glass knobs and gold labels, and lockers under, 12 feet long, 120s.; one range, 66 new pine drawers, French polished, with crystal knobs and gold labels, 132s.; one toothbrush case, secondhand, as Maw's A56; one secondhand upright show-case, as Maw's A56, plate-glass in doors, no tablet, 47s. 6d.; one large new dispensing-screen, with handsome tablet in centre, length 7 feet, £7; 12 1-pint turquoise syrup bottles, 15s.; 24 3-lb. white ointment jars, gold labelled, 40s.; 72 16-oz. narrow-mouthed rounds, labelled, 57s.; 8 doz. 20-oz. wide and narrow mouthed rounds, labelled, 90s. Illustrated lists free. R. Tomlinson, 15 St. Paul's Square, Birmingham.

Second-hand Fittings.—Plate-glass counter-case 43 in. long, 16 in. wide, trays, 21; mahogany wall-case, three bent plate-glass flaps, silver and plate ends, glass drawers 73½ in. long, 21 in. deep, 19½ in. high, 71.10s.; counter-case, as Maw's A 4, 42 in. long, 25 in. wide, 23 in. high, no carving, 67; mahogany wall glass-cases, lower compartment with open shelving pilasters, 132½ in. long, 100 in. high, 87; mahogany window-enclosure, ornamental glass; plate-glass facia, black-ground, embossed "Pharmaceutical Chemist," 146½ in. by 14 in., 37.10s.; 19 plate-glass shelves, polished edges, various lengths and widths, 2s. each; 2 ditto, 68 in. by 6 in., and 6 brackets, 15s.; 2 counter gas-pillars, 15s.; 5 window do., 12s. 6d. Hawke & Son, Wild Court, Great Wild Street, London.

Formulae.

Fragrant foaming dentifrice (like "Floriline"); marking ink, *sine* silver (aniline), writing executed defies chemicals; effervescent fruit saline (resembles Eno's); magic neutralgic drops (never-failing remedy); quinine and iron tonic (resembles Pepper's); lime-juice and glycerine (inseparable, white as milk); blue-black ink (non-corrosive, *sine* iron or galls); cherry tooth paste (never ferments, like Gosnell's); brilliantine (inseparable, like Rimmel's; pill-coating, (pearly white, no mucilage or mastic used); glycerine jelly (perfectly transparent); orimson marking ink; hair-restorer (colourless, no deposit, *sine* silver); aromatic vinegar; toilet vinegar (as Rimmel's); plate-powder (like Stevens' "Silicon"); Oleum Flavum Conc., for pomades (colour stable); soluble essence ginger (like Hay's); corn solvent, clear (not acid); liquor copaiba comp. c. bchu et matico (mixes clear with water); gonorrhoea paste, excellent (Dr. Ricord's); taraxacum and podophyllin (resembles Pepper's); with many others; send stamp for list, stating wants. The toilet preparations are identical with those prepared by a wholesale West-end firm; others equally good; all inexpensive to make; 5s. each (five for 17.). Readers are cautioned against cheap and worthless imitations. I was first to advertise formulae in this journal. "Analyst," care of Mr. Warnes, 6 Rochester Square, N.W. (Note change of address.)

Menthol oones; my formula, 9 stamps; cost 1½d. each, sell 1s. 26s/25.

Honest, Reliable Formulae, all in actual commerce, satisfaction guaranteed.—"Glycerine Cream," an elegant preparation for roughness of skin, invaluable to all, certain sale; "Entirely New Remedy for Toothache," gives instant ease, not injurious to other teeth; "Nigerine," jet-black, waterproof p.tent blacking, cheaper, sweeter, and better than Nubian; "Digestive Relish," best and cheapest sauce in creation, from 3s. gallon; "Lupuline Bitters," equal to American in every respect, one-third price; "Limes and Glycerine," elegant, creamy, snow-white, quite inseparable, pronounced best in market; "Foaming Dentifrice," resembles Floriline, costs one-eighth; "Rheumatic Embrocation," most excellent, cannot be surpassed in cheapness and efficacy; "Blood-purifying Powder" (London surgeon's recipe), popular spring and autumn remedy; "Anti-spasmodic Elixir," simple, reliable, always efficacious; "Camomile and Quinine Pills" for indigestion, &c., frequently preferred to Norton's; "Effervescent Depurative Saline," *facsimile* of Eno's, costs 10d. lb., entirely soluble, keeps well; "Cryptozymosis," certain speedy cure for gleet, &c.; "Mist. Gonorrhoea" (capivi), nauseous taste masked, unfailing remedy; "Hair-restorer" (*sine* sulphur), clear, sweet, economical, confidently recommended; "Liver Pills" (vegetable), gentle action, always effectual; "Lavender Water," superb fragrance, lasting, equals Sainsbury's; "Occasional Pills" (for ladies), most reliable, preferred to Widow Welch's; "Essence for Deafness," simple and effectual; "Podophyllin and Taraxacum," pleasant taste, vastly superior to similar preparations; "Pile Powders and Ointment," cure and prevent hemorrhoids; "Quinine and Iren Tonic," bright and unchangeable, resembles Pepper's; "Worm Syrup," entirely vegetable, pleasant and rapid action; "Riogworm Specific," certain rapid cure; "Tic Pills," unequalled in efficacy, many testimonials; "Chlorodyne," inseparable, perfectly soluble, quite equals Brown's; "Marking Ink," indelible, no waste, creditable to seller; "Fumigating Ozonic Ribbon," cheapest, sweetest, perfect disinfectant. All above guaranteed genuine formulae, are profitable, and may be recommended with confidence. Price 1s. 1d. each, 3 for 2s. 6d., 25 for 17., post free, with full particulars for making, &c., by T. Brooks, Chemist, Louth, Lincs. N.B.—Detailed list sent post free.

Miscellaneous.

For drugs, sundries, or books, apply to 262/39. Large number of lantern-slides for sale. Apply, Piggott, Chemist, Huddersfield. Two fine-tone violins by Vuillaume & Bergouzi; price, 27.10s. and 17.10s. each. Webb, Chemist, Calne. One case ½-lb. tins Phillips & Canaud's sardines, last year's fishery. Offers to Carlton & Sons, Harncliffe. Several vans, new this year, returned from hire, for sale, as second-hand, under value, cheap. Particulars, N. G. Wilcocks, Bath. For sale, a quantity of 1-oz. Oldham perfume-bottles, best white glass, 6s. per gross; 2 gross for 11s., package included. Orchard, Chemist, Ebbw Vale. Halse's 107.10s. galvanic battery; 12 silver and zinc cells, with handles, wires, indicator, &c., all complete, in good condition; price 57.5s. Hagon, Chemist, Cardiff.

Small printing office for disposal—"Albion" press, type, and every requisite; been used very little. Chemist, 34 High Street, Putney.

Clean, fresh Carlsbad, half price; elastic syringes, perfect condition, half price; window-enclosure, offer wanted; gallou window carboy. Deacon, Beckenham, Kent. A Pamphengos lantern, marvellous oil-light, equals the limelight, with four-wick condensers, only 47.4s.; a three-wick triplexicon, 37.2s.—bargains; a quantity of slides, photograph, mechanical, from 1s. each. For particulars to W. H., 82 Mortimer Road, Kingsland Road, London, N.

Large screw-press, suitable pressing fruit or fish livers, receiver lead-lined, 22 in. by 15 in. by 12 in., wood serew 3½ in. by 3 ft.; 8 horsehair bags; wood fixtures, 8 ft. high, price 25s., worth 57.; D'Or's electric light and bath complete, 12s., cost 25s.; 40 4-oz. blue shop-jars, 4d. each; 30 2-lb. ditto, with gold labels, 1s. each; lot stoppered shop-bottles; specie-jar, 24 in. high, 10s.; covered lozenge-glasses, 11½ in. by 4½ in., 8d. per lb. Floyd, Bury St. Edmunds.

WANTED.

Sheep-dip, patents, drugs; send price-list, cheap. Patterson, Barnard Castle. *Chemists and Druggists' Diary for 1884.* Collingford, Seaford, Sussex. Mixing-maehine, cheap. H., 5 Wynmerg Terrace, Lavender Hill, London, S.W. Nitrons oxide gas-apparatus, in good condition. Smith, High Street, Newport (Mon.). Kola, Scott's 1s. cigarette, Birley's phosphorus. Mickle, 48 Stanley Road, Liverpool. Swan-neck 4-gallon earboy and specie jars. Full particulars and prices to 10/220. Outside lamp and bracket, in good condition; cheap. Chemist, 34 High Street, Putney. A large compo mortar, No. 12 or larger; cheap. Jones, Chemist, Treherbert. Dental apparatus and tools, for cash. Nosworthy, Chemist, Melksham, Wilts. Four-ounce wide-mouthed flat-stoppered bottles, wall-case, to hang, about 3½ ft. high, 8½ ft. broad, 6 in. deep. Samuel Lawrence, Oban. Four-gallon copper still, complete; Coking's or Pindar's pill-machine. S. H. Mumford, Old Cross, Hertford. Wills' "Materia Medica," Atfield's "Chemistry," late edition, cheap. Jenkins, 2 Market Terrace, Upper Holloway. Recent Edition Atfield's "Chemistry," Wills' "Materia Medica"; state lowest price. F. Rideal, 66 Mottram Road, Hyde. Superior plate-glass upright counter-case, 2 ft. to 3 ft. wide, with or without desk. Full particulars and lowest price to Knowles, Birstall, Leeds.

"Science Gossip," for 1886, *Pharmaceutical Journals*, Nos. 473, 487, 500, 512, 558, 559, 560, third series; lowest price to W. Wise, Launceston.

Good second-hand nests drawers, common, show bottles, glass show cases, tincture press, 2-gallon iron mortar. Simecock, Guildford Street, Leeds.

Second-hand counter case as Maw's A 55 in good condition, about 6 feet long; also 2 mahogany shop chairs. Furneaux, Camberley, Surrey.

Few patents, 1s. 1½d. and 2s. 9d. sizes; also proprietary articles; must be clean and saleable. Any one having an over-stock of above will please send list—send lowest prices for cash, to 220/10.

Addresses and Information Wanted.

37. given, on approval, for information how to alloy cadmium metal with German silver, to be commercially and chemically successful. Address, O. Thiel, Acock's Green, near Birmingham.

1884. EIGHTEENTH SEASON.

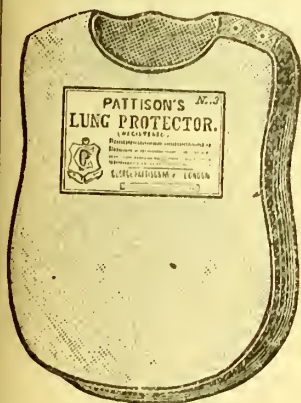
THE LUNG PROTECTOR

REGISTERED
LUNG
PROTECTOR.
TRADE MARK

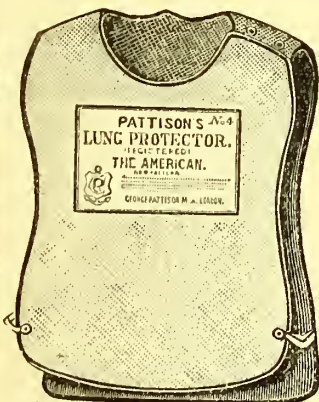
(REGISTERED).

"An Article of Acknowledged Excellence."

The "LUNG PROTECTOR" continues to be made only from the same Fine Soft Wool which has always been used since its introduction 18 years ago. Chemists are cautioned against the mendacious assertions of unscrupulous persons who push upon them coarse and inferior imitations, the sale of which can only lead to ultimate loss of trade.



THE
LUNG PROTECTOR.
ORIGINAL PATTERN.



LUNG PROTECTOR.
THE AMERICAN.



LUNG PROTECTOR.
THE CANADIAN.



CHEST PROTECTOR.

PRICES :

	No. 0	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	
Original Pattern, Seven sizes	14/-	18/-	26/-	34/-	42/-	52/-	60/-	per doz.
The American, Six sizes	20/-	28/-	36/-	44/-	54/-	62/-		"
The Canadian, Six sizes	22/-	30/-	40/-	50/-	60/-	70/-		"

FELT CHEST PROTECTORS.

Prices...	No. 00	No. 0	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	
	4/-	6/-	8/-	10/-	12/-	16/-	20/-	24/-	per doz.

All in Scarlet and White, and made in same Wool as the "Lung Protector."

Terms : All Wholesale Houses either allow a large Discount for Cash, or quote the goods at Reduced Net Cash prices.

FELT CHEST PROTECTORS, C QUALITY, single and double, each in five sizes.

At lower prices than above, and equal to **BEST** of other makers, but are not recommended.

GEORGE PATTISON,
INVENTOR AND MANUFACTURER,
139 ST. JOHN STREET ROAD, LONDON, E.C.

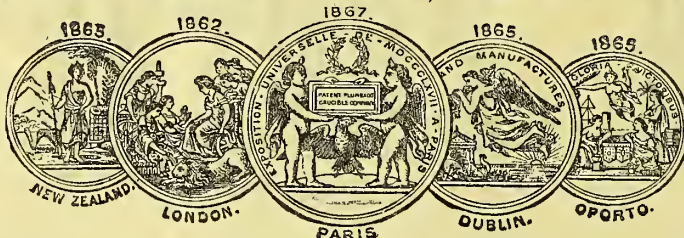
PARIS, 1878—AWARD, THE ONLY GOLD MEDAL FOR PLUMBAGO CRUCIBLES.
THE SALAMANDER BRAND OBTAINED THE SOLE AWARD FOR CRUCIBLES AT FRANKFORT, 1881 (GOLD MEDAL).

THE MORGAN CRUCIBLE COMPANY

(THE PATENT PLUMBAGO CRUCIBLE COMPANY),
PHILADELPHIA CENTENNIAL EXHIBITION, 1876—MEDAL AWARDED.

Moscow Exhibition,
1872.
Gold Medal. SOLE Award
for Crucibles.

Amsterdam Exhi-
bition, 1869.
Highest Award for Crucibles.



Havre Exhibition,
1868.
ONLY First-Class Medal
(silver) awarded.

Paris Exhibition,
1887.
The only First-class Medals.
Silver Medals,
Classes 40 and 51.

BATTERSEA WORKS, LONDON, ENGLAND
(SOLE MANUFACTURERS OF MORGAN'S AND SALAMANDER CRUCIBLES).

SALAMANDER - CRUCIBLES,

Patented in Great Britain, Germany, France, Italy, United States, &c., &c.,
ARE NOT AFFECTED BY MOISTURE OR FROST.
The only Plumbago Crucibles that require NO ANNEALING.

Each number contains about 2 lbs. English (thus, No. 25=50 lbs. capacity), and the Crucibles are so stamped.

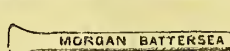


No.	5/0..	per doz.	£0 8	No.	5..	per doz.	£0 15 0	No.	25..	each	£0 6 3	No.	90..	each	£1 2 6
4/0..	"	0 1 1	6..	"	0 18 0	"	30..	"	0 7 6	"	100..	"	1 5 0	"	1 5 0
3/0..	"	0 1 4	8..	"	1 4 0	"	35..	"	0 8 9	"	120..	"	1 10 0	"	1 10 0
2/0..	"	0 2 0	10..	"	1 10 0	"	40..	"	0 10 0	"	150..	"	1 17 6	"	1 17 6
0..	"	0 2 6	12..	"	1 16 0	"	45..	"	0 11 3	"	200..	"	2 10 0	"	2 10 0
1..	"	0 3 0	14..	"	2 2 0	"	50..	"	0 12 6	"	250..	"	3 2 6	"	3 2 6
2..	"	0 6 0	16..	"	2 8 0	"	60..	"	0 15 0	"	300..	"	3 15 0	"	3 15 0
3..	"	0 9 0	18..	"	2 14 0	"	70..	"	0 17 6	"	400..	"	4 5 0	"	4 5 0
4..	"	0 12 0	20..	"	3 0 0	"	80..	"	1 0 0	"	500..	"	6 5 0	"	6 5 0

SALAMANDER MUFFLES, to suit above Crucibles, 2d. per Number.



SALAMANDER COVERS.



12-in. STIRRERS, 12s. per dozen.



STANDS.



TRADE MARK.

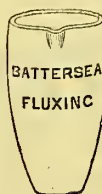
INDENT FOR
SALAMANDER-CRUCIBLES
And thereby ensure getting DAMP-PROOF CRUCIBLES
manufactured by
THE MORGAN CRUCIBLE COMPANY.

FLUXING POTS.

IDENTICAL WITH THE FRENCH IN QUALITY, FORM, AND CAPACITY.

No.	Height, inches.	Height, milli.	Diameter, inches.	Diameter, milli.	Per dozen Crucibles.
0	2	050	1 1/2	030	£0 0 4
1	2 1/2	055	1 1/2	033	0 0 6
2	3	060	1 1/2	036	0 0 8
3	3 1/2	070	1 1/2	042	0 0 10
4	4	080	1 1/2	046	0 1 0
5	4 1/2	090	1 1/2	050	0 1 2
6	5	100	2 1/4	055	0 1 4
7	5 1/2	110	2 1/2	062	0 1 6
8	6	120	2 3/4	068	0 1 10
9	6 1/2	135	2 3/4	074	0 2 4
10	7	150	3	080	0 2 9
12	7 1/2	185	3 1/2	095	0 4 9

COVERS TO FIT ALL SIZES.



ALL DAMP-PROOF CRUCIBLES manufactured by
THE MORGAN CRUCIBLE COMPANY
Are distinguished by the Brand
"SALAMANDER."

BATTERSEA ROUND.

Stamped as on illustration.



N	Height, inches.	Width, inches.	Crucibles per doz.	Covers, per doz.	No.	Height, inches.	Width, inches.	Crucibles per doz.	Covers, per doz.
A	2 1/2	1 1/2	0/5	0/6	B	3	1 1/2	0/6	0/6
C	3 1/2	2 1/2	0/9	0/6	D	4	2 1/2	0/10	0/6
E	4 1/2	3 1/2	1/4	0/9	F	5	3 1/2	1/5	1/0
G	5 1/2	4 1/2	2/0	1/0	H	6	4 1/2	2/1	1/3
I	6 1/2	5 1/2	2/5	1/6	J	7	5 1/2	3/2	2/0
K	7 1/2	6 1/2	3/0	2/0	L	8	6 1/2	4/0	2/6
M	8 1/2	7 1/2	4/0	3/0	N	9	7 1/2	5/0	3/6
O	9 1/2	8 1/2	5/0	4/0	P	10	8 1/2	6/0	4/0
Q	11	10	6/0	5/0	R	12	9 1/2	7/0	5/0

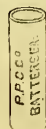
BATTERSEA TRIANGLE.

Stamped as on illustration.



No.	Height, inches.	Width, inches.	Crucibles per doz.	Covers, per doz.	No.	Height, inches.	Width, inches.	Crucibles per doz.	Covers, per doz.
S	4 1/2	3 1/2	2/0	1/0	T	4 1/2	3 1/2	1/6	1/0
U	5 1/2	4 1/2	3/0	1/1	V	5 1/2	4 1/2	2/0	1/0
V	6 1/2	5 1/2	4/0	1/2	W	6 1/2	5 1/2	3/0	1/0
Y	7 1/2	6 1/2	5/0	1/3	X	7 1/2	6 1/2	4/0	1/0
					Z	8 1/2	7 1/2	5/0	1/0

POROUS BATTERY CELLS.



NOTICE.—Care should be taken in all instances, when ordering, to specify the Crucibles, &c., manufactured by
THE MORGAN CRUCIBLE CO. (Sole Manufacturers of Morgan's and Salamander Crucibles), Battersea Works, LONDON, S.W.

THE ORIGINAL
ARNICATED

WHITE FELT

CORN AND BUNION PLASTERS.

INVENTED AND ESTABLISHED BY

HENRY YOUNG,

A.D. 1846,

AND FAVOURABLY KNOWN ALL OVER THE GLOBE.

PRICES-

Arnicated White Felt Corn Plasters.

Thin, 12 in box (round 6d. boxes) ...	2/4 per doz. boxes.
Thick, 12 in box (original 1s. fancy boxes) 3/4	"
Thin, 1 gross in box ...	1/10 per gross.
Thick, 1 gross in glass-top box ...	3/0 "

Arnicated White Felt Bunion Plasters.

Small Thin, 6 in box (round 6d. boxes) ...	2/4 per doz. boxes.
Thick, 6 in box (original 1s. fancy boxes) 3/8	"
Large Thin, 1/2 gross in box ...	4/6 per gross.
Thick, 1/2 gross in glass-top box ...	6/0 "

SUBJECT TO THE DISCOUNTS ALLOWED BY WHOLESALE HOUSES.

*N.B.—Please see that YOUNG'S Goods are supplied, as there are many worthless imitations.***Manufactory, 72 Clerkenwell Road, London, E.C. (late of CARTHUSIAN STREET).****The Greatest Corn Remedy of the Age.****PAINLESS CORN & WART PAINT (Registered).**

USED AND RECOMMENDED BY THE FACULTY.

This valuable preparation totally removes hard and soft Corns and Warts, leaving the part healthy and free from pain.

The proprietors have received from all parts the most wonderful testimonies to the miraculous cures effected by the paint, which is known and recognised everywhere as

"THE PERFECT CURE."

In cases containing a bottle of paint, camel's-hair pencil, and adhesive plaster, price 7½d. Full directions for use are enclosed with each bottle. Sample by post, 7½d. PREPARED ONLY BY

J. HARGREAVES & SON,

Chemists, 108 Fylde Road, PRESTON.

LONDON DEPOT: 1 AND 2 AUSTRALIAN AVENUE, E.C.

LIVERPOOL DEPOT: 149 DUKE STREET.

IMPORTANT TO CHEMISTS AT HOME AND ABROAD.

The DORIC CURES are Safe, Sure, Speedy Specifics.

DORIC EYE LOTION, guaranteed to quickly cure red, sore, inflamed eyelids and watery eyes.**DORIC WART, CHILBLAIN, CHAP, and CORN CURE** softens and whitens roughest hands and skin. It is harmless, sweet-smelling, and beneficial.**DORIC NEURALGIA CURE** is unsurpassed and easily applied.**DORIC HAIR RENEWER** acts on the hair like magic, and quickly converts fine down into strong, healthy hair.**DORIC TOOTHACHE CURE** and PREVENTATIVE is a liquid, and contains no acid or injurious compound. It cleans the teeth, refreshes the mouth, hardens the gums, and arrests decay.

ALL 1/1½ AND 2/9 RETAIL.

CHEMISTS who write for particulars and mode of doing business will not regret doing so. Address—

DORIC CURATIVE CO., 20 HIGH HOLBORN, LONDON,

Or through Wholesale Houses.

Agents in Ireland—Messrs. Davidson & Leslie, Castle Place, Belfast.

Scotland—Messrs. Ralms & Co., Edinburgh.
Agents wanted in English towns, the Colonies, and abroad. Exceptional terms given**SCHIEFFELIN'S**

Are made of the best materials; perfectly protected; entirely and quickly soluble; coated while soft; not subjected to the injurious effects of heat in the process of manufacture. The mass is worked to the highest possible degree of uniform intermixture, and subdivided with scrupulous exactness. The coating is an inert,

tasteless, and odourless compound, which is so transparent, colourless, and thin, that the distinctive colour of each pill is revealed through the coat. No sub-coating is used. The solubility of the coating is not impaired by age. All the official pills, as well as any others ordered by the Medical Profession, can be furnished in this form. They can be implicitly relied upon in every respect. The coating, while thoroughly protecting the pill, will not be found to in any way interfere with the action of the drug, and those who have found sugar or chalk-coated pills objectionable, owing to the liability of the coating becoming insoluble by age, will find our coating to dissolve as readily after many years as when first prepared. It, moreover, does not form a hard tough shell, as is the case with the ordinary gelatine coating. We claim and believe our Coated Pills to be nearer perfection than any similar goods that have been offered, and guarantee the pills to be as quickly effective as any uncoated pills that can be made.

SOLUBLE**PILLS.****ALLEN & HANBURYS, Plough Court, Lombard Street, LONDON.**

✱
BURROUGHS
SPIRITUS RECTIFICATUS P.B.

SPIRITS OF WINE

THE BEST ENGLISH GRAIN SPIRIT
FREE FROM FUSEL OIL CHEMICALLY PURE
5 gallons 60 over proof at 19/10 net cash
Special Quotation for Quantity
DUTY FREE FOR EXPORT 4/4

Best BURROUGHS
Methylated Spirits
Cale St Distillery
AT LOWEST PRICES
BURROUGHS
✱
CHELSEA,
S.W.

JONES & MASON, METHYLATED SPIRIT MAKERS.

Regent Wharf, Copperfield Road, Mile End, London, E.
FROM RATCLIFF.

SAMPLES AND PRICES UPON APPLICATION.

NAPHTHA

Rect. (WOOD).

AT LOWEST PRICES OF THE DAY.

A. MACNAIR & CO.,
20 DUTTON STREET, MANCHESTER.

SHELLACS, GUMS & SPIRITS (Pure and Methylated).

METHYLATED SPIRIT & FINISH

Supplied of the best quality in wholesale quantities by

J. & W. HARVEY & CO., Distillers, Yoker, GLASGOW.

LONDON AGENTS—JAMES CHAMBERS & CO., 23 BIRCHIN LANE, CORNHILL, E.C.

PITCH,

OILS, TALLOW, &c.

J. R. PEACE & CO.,
26 ALEXANDRA BUILDINGS,

Establd.] 41 Ormond Street, Liverpool, [1867.

IMPORTERS OF AND MERCHANTS IN ALL KINDS OF PITCH, OILS, &c.

Hard and Soft Stearine Pitch	Palm Oil Pitch	Brimstone, Ashes, &c.
Cotton Seed and Patent "	Hot Neck Grease	Roll and Flour Sulphur
Brown, Vegetable, & Wood "	Turpentine & Rosin	Tallow, Cylinder Oils, &c.
Stockholm and Archangel "	Soft Soap, Glues, &c.	General Produce.

SAMPLES AND LOWEST PRICES ON APPLICATION.

PURE SPIRITS of WINE

For Tinctures, Essences, Perfumes, &c.

A. MACNAIR & CO.,

RECTIFIERS,

20 DUTTON STREET, MANCHESTER.

Best to call the attention of CHEMISTS AND DRUGGISTS to their under-mentioned prices of Pure Spirits of Wine:—

Strength per cent.	Specific gravity.	Price per gall.
63 over proof	0.8238	20/10
60 " "	0.8298	20/4
55 " "	0.8368	19/10
50 " "	0.8482	19/4

Cash on Delivery. Jars to be returned or paid for.

For Exportation, Cask included, 4/1, 60 o.p., F.O.B.

Orders from the country must be accompanied by a remittance, including the price of the Jars, which are charged as follows:—2 galls. 2/6; 4 galls. 4/0; 5 galls. 5/0; 6 galls. 6/0. When the Empties are returned, the money will be repaid.

Also ABSOLUTE ALCOHOL. Prices on application.

PRONK, DAVIS & CO.,

ANILINE DYE AND CHEMICAL AGENTS,

41 GREAT TOWER STREET BUILDINGS,

LONDON, E.C

Specialities for Varnishes and Wood Stains.

THE FINEST AND CHEAPEST

SPIRIT BLACK

IN THE MARKET.

BRONZE POWDER, GOLD AND METAL LEAF.

Vermillion, Vermillionette, Ultramarine.

CUDBEAR, INDIGO PASTE, JEWELLERS' ROUGE.

F. GREEN & CO.,

PHOENIX

DRUG, SPICE, AND SEED MILLS,

BIRMINGHAM,

HAVE for many years given careful attention to the selection of Seeds, Spices, Roots, &c., used in the manufacture of Cattle Condiments and Veterinary practice generally, and, having special machinery for separating all extraneous matter before grinding, and careful dressing afterwards, they can guarantee purity and full strength.

SPECIALITIES.

Pure Crushed Linseed.

Finest quality from Screened Seed. No oil extracted.

Price, in 1 cwt. and 2 cwt. bags (free), 17s. cwt.

Powdered Aniseeds - - -	38/ cwt.	Powdered Gentian Root (finest) -	40/ cwt.
„ Carraway Seed - - -	40/ „	„ Columba „ - - -	45/ „
„ Coriander Seed - - -	34/ „	„ Galangal „ - - -	48/ „
„ Fœnugreek Seed - - -	13/ „	„ Liquorice „ (finest) -	36/ „
„ „ „ bright - - -	16/ „	„ Turmeric „ - - -	32/ „
„ Cummin Seed - - -	42/ „	„ Grains of Paradise -	35/ „
„ Charcoal, Vegetable -	8/6 „	„ Ginger, fine Cochin -	70/ „
„ „ Willow - - -	20/ „	„ Cloves - - -	90/ „
„ Antimony Black - - -	28/ „	„ Cayenne - - -	100/ „

PACKAGES, NEW SACKS, OR PATENT AIR-TIGHT CASKS COST PRICE, NOT RETURNABLE.

TERMS—Nett cash with order or Trade references.

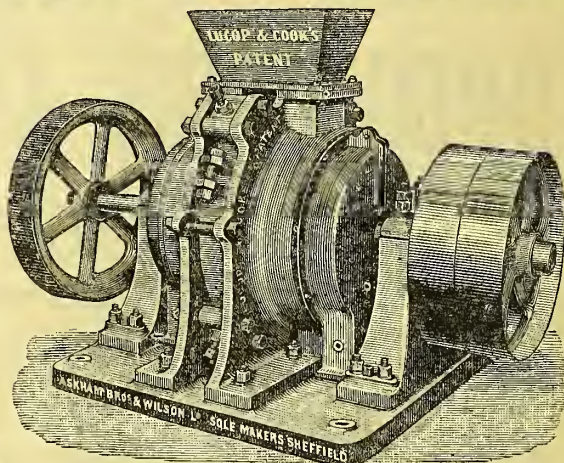
Drugs, Spices, Seeds, &c., ground for the Trade.

SOLE MAKERS
OF**LUCOP & COOK'S
CENTRIFUGAL PULVERIZER.**

Efficient.

Durable.

Simple.

**THE MOST ECONOMICAL MILL
IN THE MARKET.**

*This Machine
will Pulverize
any Material, such
as the following :*

**BONE ASH, CHARCOAL,
CEMENT, COAL, ALL KINDS
OF COLORS, ETC.**

CHEMICAL CRYSTALS.

*Plumbago, Brunswick Black, &c.;
Founders' Blacking, Plaster, &c.*

PHOSPHATES, SULPHATES, and

ALKALIES of all kinds.

PUMICE STONE, DRY SOAP,

GLASS, &c., &c.

**This Machine is readily put together and kept in
order, requiring very little power. Will Pulverize
anything capable of being so treated.**

CRUCIBLE STEEL CASTINGS

OF EVERY DESCRIPTION.

Send a Sample Cwt. of
your Own Material,
to be Ground Free,
and ask for full
particulars.



JACKMAN BROS. & WILSON L.D.

SHEFFIELD

IMPROVED AND LATEST MACHINERY

PARIS, 1878.

FOR

VIENNA, 1873.



DRUG GRINDERS,

WHOLESALE

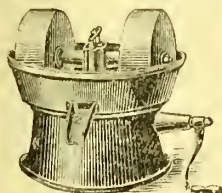
CHEMISTS & DRUGGISTS,



PAINT AND COLOUR MANUFACTURERS, AND OTHERS.

HAND EDGE RUNNER MILL.

With Iron or Granite Rollers and Bed.

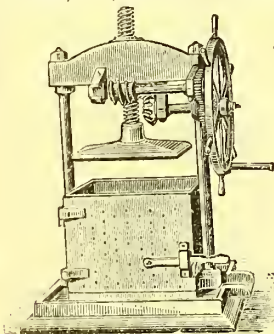


HAND MIXING AND CRUSHING PAN MILL.

For Ointments,
Pastes,Powders,
&c., &c.

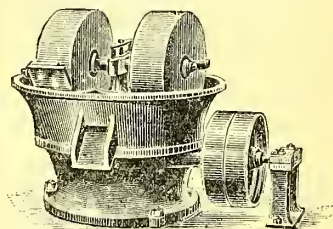
COMPOUND PRESS.

For Tinctures, &c. (made in Wood and Iron).

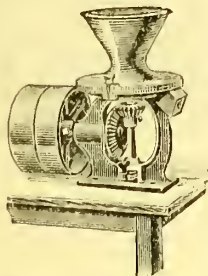


POWER EDGE RUNNER MILL.

With Iron or Granite Rollers and Bed.

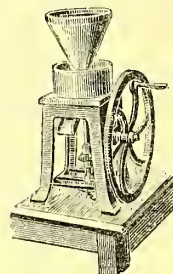


NEW DRUG MILL.

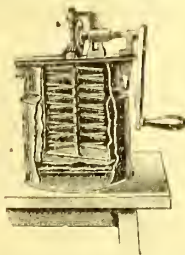
For Ginger, Roots, and all kinds of friable
materials.

HORIZONTAL MILL

For Dry Powders.

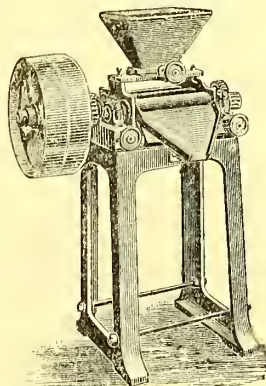


NEW HORIZONTAL MIXER,

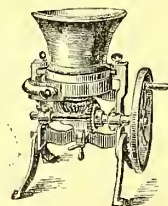
For Amalgamating Compounds, &c. (made with
without casing).

NEW GRINDING MILL,

For Pastes, Colours, and Inks.



IMPROVED PAINT MILL.

For Mixing and Grinding Colours in Water or
Oil ready for use.**MACHINES FOR SPECIAL PURPOSES, EVAPORATING PANS, &c., MADE TO ORDER.**

Prices and particulars on application to

FOLLOWS & BATE, LIMITED, Engineers,

DUTTON STREET WORKS, MANCHESTER.

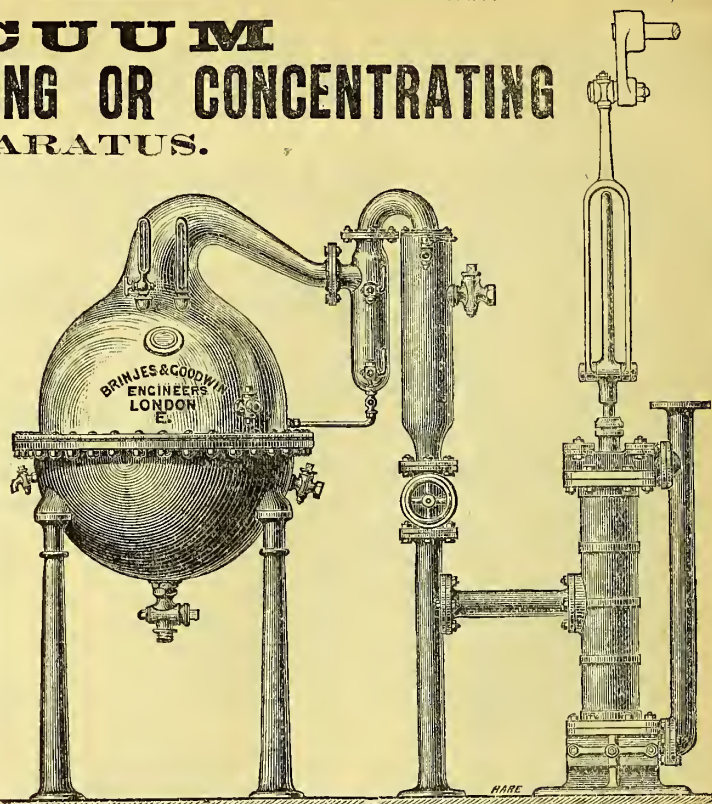
VACUUM BOILING, EVAPORATING OR CONCENTRATING APPARATUS.

This apparatus is used for boiling and evaporating at very low temperature, whereby the product is not deteriorated by excessive heat, which frequently occurs in other Evaporators

Made in Copper or Iron, from 1 ft. to 12 ft. diameter

Several in work for years. All kinds of Pans, either stationary or tilting, made to order.

PRICES according to size and other particulars.



BRINJES & GOODWIN, WHITECHAPEL ENGINE WORKS,
FIELDGATE STREET, LONDON, E.

THE "SIMPLEX" PILL MASSER.

Eastern Dispensary,
Leman Street, London, E.,
May 29, 1884.

Gentlemen,—I have long wished to meet with a really efficient MECHANICAL substitute for the Pestle and Mortar. Your "Masser," in my hands has been so satisfactory, that I felt justified in introducing it to the notice of the Dispensary Department of the London Hospital.

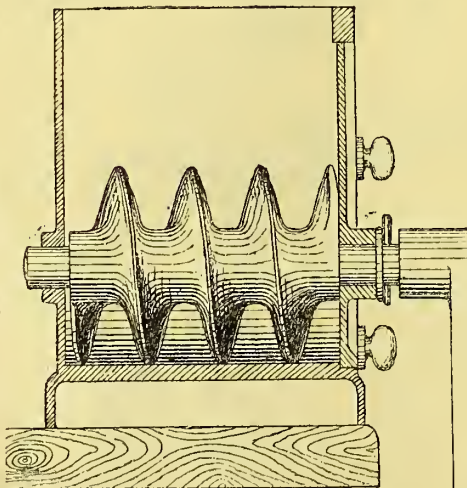
There it has been highly appreciated—its Time and Labour Saving qualities at once proving its value.

I remain, yours faithfully,

C. W. LEAPINGWELL,
M.R.C.S., Eng.,

Resd. Med. Officer, Eastern Dispensary.

To the U. M. & C. M. Co., Ltd.,
Queen Victoria Street.



Made in sizes to mix from $\frac{1}{2}$ lb. to 20 lbs. at a time.

AS EXHIBITED
AT THE
INTERNATIONAL
HEALTH
EXHIBITION,
1884.

ALSO
POWDER MIXERS,
CRUSHERS,
MEAT CUTTERS,
SAUSAGE MACHINES,
&c., &c.

The UNIVERSAL MIXING & CHOPPING MACHINE CO., L^{TD}
11 QUEEN VICTORIA STREET (Room 505), LONDON, E.C.



Electric Polish! Electric Polish!!

For cleaning Silver, Copper, Brass, Steel, & all bright metals, diminished labour, less trouble and expense, use

LEWIS'S ELECTRIC POLISH,

which will make old and tarnished articles bright as new. It is a liquid preparation, and entirely different to anything yet introduced. It contains no acid, mercury, or injurious chemicals, easily applied, and at once produces a bright, mirror-like surface, and lasting. Tradesmen and others who require a polish for their Scales, Weights, Brass Stalls, &c., it is invaluable. For domestic use, Silver, Electro Plate, Steel, Door Handles, &c., it will prove a great boon. When once tried, it will never give place to any other. An outlay of 6d. for a bottle will never be regretted. Price 6d. and 1s. per bottle, of all Chemists.

SOLE MANUFACTURER,

D. J. LEWIS, Chemist, &c., High St., Acton, W.

Wholesale London Agents—SANGER & SONS; G. B. KENT & SONS; S. MAW, SON & THOMPSON; and SOUTHALLS, Birmingham.
The Proprietor can with every confidence recommend this to the Trade.

3 Prince of Wales Crescent, Kentish Town,

London, N.W., January 16, 1884.

SIR,—I have much pleasure in informing you that the bottle of "ELECTRIC POLISH" I bought of you does even more than you promised it should do. I gave it a fair trial with gold, silver, and brass, and found it to give a far more lustrous and lasting polish than any paste or powder I ever tried, and when once a bright surface is obtained it is some considerable time before it becomes dull again. It needs only to be known to be appreciated. You are at liberty to make what use you like of this letter, and I trust the sale of your Polish will continue to increase, as such a very useful and economical preparation deserves to.

I am, Sir, yours truly,

M. HERSANT.

To Mr. LEWIS, Chemist, &c.

Apsley Terrace, Acton, W., April 10, 1884.

Mrs. CONRAD HOWELL has much pleasure in testifying to the excellence of the ELECTRIC POLISH prepared by Mr. LEWIS. It seems to suit all metals equally; it has completely restored some tarnished silver which Mrs. H. was about to send to a Silversmith to be cleaned. No one who tries it can doubt the result.

W. KEMP & SON, HORNCastle.**PURE CRUSHED LINSEED,**

CONTAINING ALL THE OIL. A strictly pure article, all other seeds, dirt, &c., being entirely removed. It is lightly crushed from a special kind of large bold seed, which gives a larger proportion of meal to husk than the ordinary commercial Linseeds. Price 18/6 per cwt., bag free. Special quotations for 5 cwt. and upwards.

NOTE.—This quality can be obtained from Messrs. Barclay & Sons, 95 Farringdon St., London, in 1-cwt. bags at above price; smaller lots 20/ cwt.

CRUSHED LINSEED No. 2,

Contains all the Oil, and is crushed from sound good Linseed, 17/6 per cwt., bags free.

CRUSHED LINSEED No. 3,

Contains all the Oil, and is crushed from sound good Linseed, 16/6 per cwt., bags free.

CRUSHED SICILIAN LINSEED,

The best for feeding purposes; merely requires scalding to make a stiff jelly, and when introduced at once creates a large demand; bags free.

PURE LINSEED MEAL,

WITHOUT OIL. Best quality only, 11/6 cwt., bags free.

All ground in our own mills, and always sent out freshly crushed.

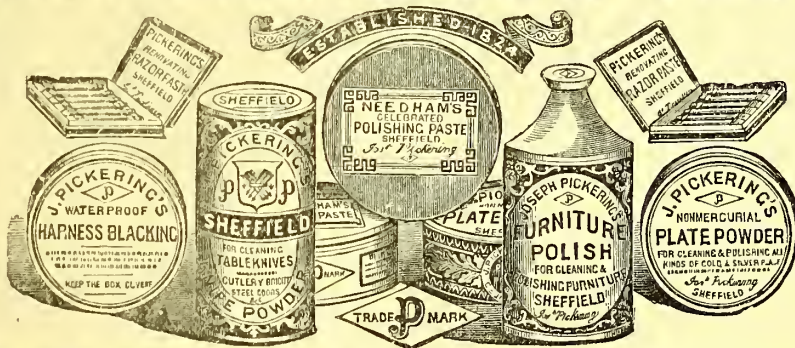
Special Quotations for Quantity.

Above can be had with the Husk wholly or partially sifted out at an advanced price. Correspondence on this subject is invited.

Applications for Samples solicited.

W. KEMP & SON, Seed Crushers, HORNCastle.

ESTABLISHED 1824.



NEEDHAM'S

For Cleaning and
Polishing Brass, Copper,
Tin, Britannia Metal,
&c., &c.

POLISHING



Pickering's Furniture Polish, Plate Powder, Knife Powder,
Brunswick Black, Razor Paste, Harness Blacking, &c.

Wholesale by London, Sheffield, Birmingham, and Wolverhampton Merchants,
and Retail by Chemists, Ironmongers, and Grocers.

PASTE.

JOSEPH PICKERING & SONS, SHEFFIELD.

Gold Medal, Adelaide, 1881.
Order of Merit, Melbourne, 1880.
Diploma of Merit, Vienna, 1873.

Established over Half a Century.

"LA BRILLANTINE"

(REGISTERED).

SOLD IN 6d. AND 1s. BOXES.

METALLIC POWDER

Is the best, cheapest, and most effective Powder for cleaning and polishing Metals and Glass (especially Brass). It is used by the Life, Horse, and Dragoon Guards, the Fire Brigades, &c., &c.

PROPRIETORS—

J. F. BAUMGARTNER & CO.,
22½ NEWMAN STREET, OXFORD STREET,
LONDON, W.**DUBBIN****DALES'**

GOLD MEDAL

PORPOISE OIL**DUBBIN,**

For Waterproofing, Softening and Preserving Boots, Harness, Leggings, Belting, &c. Awarded 3 First Prize Medals, 2 Gold.

Does not prevent the boots blacking. Free from unpleasant odour. Restores the nature and softness to leather which it loses in wear. Put up in elegant style, and always gives satisfaction. Tins, 1d., 2d., 6d., 1s., and 2s. 6d. Special tins for export. Show-cards, transparencies, &c., supplied. Handsome Show Cases for first orders of 50s. For further particulars see page 64, in 1883 Diary. Wholesale from Wholesale Houses, and

287 CRYSTAL PALACE ROAD, LONDON, S.E.

GENUINE OIL OF MUSTARD SEEDIs strongly recommended as a safe and effectual remedy in cases of Rheumatism, Gout, Rheumatic Gout, Sciatica, Lumbago, Headache, Pains in the Stomach, Spasms, Bruises, Chilblains, &c. *Retail in Bottles, 1s. each.*Imported by **J. H. & S. JOHNSON, Wholesale Druggists,**
6, 8, & 10 WHITECHAPEL, AND 7 CHURCH STREET, LIVERPOOL.**METALLIC POLISH POWDER**

(BRILLANTINE).

The only one in the World. Has gained many Awards of Merit. To Clean and Polish Gold, Silver, and other Metals Ivory, &c. Put up in Boxes and Packets; also loose in Barrels.

UNIVERSAL METAL POLISH POMADE.

NOT TO BE EQUALLED. In Decorated Tin Boxes; also loose in Barrels. SAMPLES ON APPLICATION.

FRITZ SCHULZ, Jun., Chemical Manufacturer, LEIPZIG.**DAVID SALMOND & SON,****SEED CRUSHERS AND OIL REFINERS,**

MANUFACTURERS OF

PURE LINSEED & COTTON CAKES,

ALSO

R A P E C A K E S

FOR MANURE PURPOSES,

WILMINGTON OIL MILLS, HULL, YORKS.Following is COPY of a REPORT by PROFESSOR AITKEN, of Edinburgh, on our
"D. S. PURE" LINSEED CAKES:—

"CHEMICAL LABORATORY, 8 CLYDE STREET, EDINBURGH, 3RD DECEMBER, 1883.

"The Analysis of this sample of Linseed Cake is precisely what the Analysis of a first-class Linseed Cake ought to be I have carefully investigated the Sample in every way, and find it to be a pure and genuine Linseed Cake, in excellent condition.

(Signed)

"A. P. AITKEN, D.Sc.,

"Chemist to the Highland and Agricultural Society."

**IMPORTANT REDUCTION in the WHOLESALE PRICE of LAMPS,
FROM OCTOBER 1, 1884.**

SAMUEL CLARKE'S PATENT PYRAMID NURSERY LAMP FOOD WARMERS

MOSCOW EXHIBITION, 1872,

1st Award, First Grand Silver Medal to Samuel Clarke, London, for his Patent Pyramid Night Lamp Food Warmer.

2nd Award, First Grand Silver Medal to Samuel Clarke, London, for his Patent Pyramid Night Lights.

PRIZE MEDAL AWARDED, LONDON, 1873.

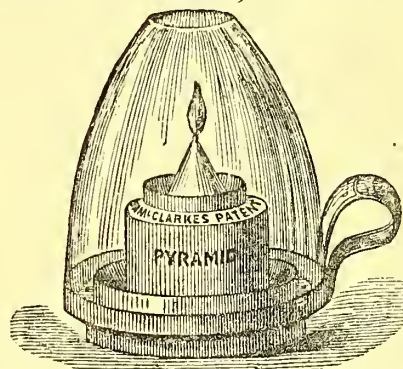
PRIZE MEDAL AWARDED, PARIS EXPOSITION, 1887.

SILVER MEDAL AWARDED AT THE HEALTH EXHIBITION, SOUTH KENSINGTON, 1884.



PATENT PYRAMID NIGHT LAMPS. THE BURGLAR'S HORROR!!

RETAIL PRICE, 1/- EACH.



NOTICE TO THE TRADE.

Dealers having any PYRAMID Food Warmers, or PYRAMID Night Lights, in an unsaleable condition from exposure in the Shop, can have them exchanged for NEW ONES, without any CHARGE, by sending them Carriage Paid to the Patentee, S. CLARKE, Pyramid Night Light Works, Child's Hill, London, N.W.

Show Cards and Counter Bills will be forwarded CARRIAGE PAID on application by letter or post card.

	RETAIL.	WHOLESALE.	REDUCED PRICES.—NET CASH
No. 1 Holds Half a pint Food, besides Water	Price 3s. 6d. each	30s. Per Dozen.	27s. per dozen.
No. 2 Holds Three-quarters of a Pint Food, besides Water	5s. 0d. "	36s. "	30s. "
No. 3 Holds One Pint Food, besides Water	6s. 0d. "	42s. "	33s. "
Clarke's Hot-water Lamps	2s. 6d. "	20s. "	18s. "
" Pyramid Night Lamps, Lacquered or Bronzed	1s. 0d. "	8s. "	6s. "
Lights		7s. 6d. "	
Extras.—Porcelain Panakins, No. 1, 8s., No. 2, 9s., No. 3, 10s. per doz. ..		Tin Panakins	No. 1, 8s., No. 2, 10s., No. 3, 12s. per doz.
Lids	No. 1, 2s., No. 2, 3s., No. 3, 4s. "	Clear Glasses, 4s. ..	Roughed, 6s. .. Opaline, 6s. "

PATENT PYRAMID NIGHT LIGHT WORKS, CHILD'S HILL, LONDON, N.W.

AMERICAN DEPOT: 25 & 27 EXCHANGE ALLEY, WARD STREET, NEWARK, NEW JERSEY.

PATENT PYRAMID NIGHT LIGHT WORKS, CHILD'S HILL, LONDON, N.W., July, 1884.
DEAR SIR,—Permit me to call your special notice to the above, showing the great reduction in the wholesale prices of Pyramid Nursery Lamp Food Warmers and Pyramid Night Lamps, from the 1st October, and to the very large profit they bear to the retail dealer.
I wish also to call your attention to the note above, showing the exceptional advantages in selling my goods.
Orders for Lamps of not less than a dozen will be sent in a free case, carriage paid, to any part of the Kingdom.
Soliciting your early order, to be executed at the reduced prices,
I am, dear sir, yours obediently,
SAMUEL CLARKE.

GENUINE EMERY, EMERY CLOTH, AND BLACK LEAD.**JOHN OAKLEY & SONS,**

MANUFACTURERS OF

Glass Paper, Emery and Glass Cloth; Emery, Black Lead, Pumice, Putty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish, Furniture Polish, Knife Boards, Brunswick and Berlin Black, &c.

OAKLEY'S WELLINGTON KNIFE POLISH,

Prepared expressly for Oakley's Patent India-Rubber Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines. Sold in Packets, 8d. each; and Tins, with perforated Tops to prevent waste, 6d., 1s., 2s. 6d., and 4s. each.

OAKLEY'S NON-MERCURIAL SILVERSMITH'S SOAP,

For Cleaning and Polishing Silver, Plate Glass, Marble, &c. Tablets, 6d. each.

OAKLEY'S POLISHING PASTE,

For Cleaning Brass, Copper, Tin, Pewter, &c., &c. Tins, 1d., 2d.; Pots, 6d. and 1s. each.

WELLINGTON BLOCK BLACK LEAD,

In 1d., 2d., and 4d. Blocks, and 1s. Boxes.

WELLINGTON EMERY & BLACK LEAD MILLS, Westminster Bridge Road, London, S.E.

Highest Award and Prize Medal, Philadelphia Exhibition, 1876; and Boston, 1883. Gold Medal, Crystal Palace, 1884.

A. SANDERSON & CO.,
WHITE LEAD, PAINT, COLOUR AND VARNISH WORKS,
 HUMBER BANK, ROPERY ST., AND JACKSON ST., HULL.

PAINTS MIXED READY FOR USE, ALL COLOURS,

Best Quality, in 1, 2, 4, 7, 14, and 28 lb. Tins, 34s. per cwt., carriage paid.

SANDERSON'S IMPROVED DAMP-RESISTER, for the effectual cure of damp walls.

SANDERSON'S IMPROVED CAUSTIC PASTE, for removing old paint, varnish, &c.

PINK PRIMING PAINT, EXTRA STRONG PATENT DRYERS, PUTTY, &c., &c.

SHOW CARDS, SAMPLES, AND PRICES ON APPLICATION.

BROWN'S SATIN POLISH.

Highest Award, Philadelphia, 1876. Gold Medal, Berlin, 1877. Highest Award and only Medal, Paris Exhibition, 1878. Highest Award, Melbourne, 1881. Highest Award and only Medal, Frankfurt, 1881. Highest Award and only Medal, Amsterdam, 1883.

Put on by Sponge attached to Wire and Cork in each Bottle. No Polishing Brush required. Dries in a few minutes. Can be used by any lady without soiling her fingers.

The "Satin Polish" is the most Elegant Article of the kind ever produced.

LADIES' SHOES, which have become Red and Rough by wearing, are restored to their ORIGINAL COLOUR AND LUSTRE, and will not soil the skirts when wet. TARNISHED PATENT LEATHER is improved by it.

For Travelling Bags, Trunks, Harness, Carriage Tops, &c., it is unequalled. It will not harden the Leather nor crack. It is not a spirit varnish. In Cartons, 4s. 6d. per dozen; 52s. per gross. Packed in Sawdust, 3s. 9d. per doz.; 43s. per gross. 2½%.

AMERICAN MAGIC BRONZE

Is the best in the Market, and it can be used with good effect on Ornaments, Picture Frames, Iron and Fancy Work generally, as well as for Boots and Shoes. In Cartons, 7s. per dozen. 2½%.

SOLD BY ALL WHOLESALE CHEMISTS AND DRUGGISTS' SUNDRIESMEN.

Factories: BOSTON: MONTREAL: 18 & 20 Norman's Buildings, ST. LUKE'S, LONDON.

ESTABLISHED 60 YEARS.

Exhibitions—1851, 1862; Paris, 1867, 1878.

LEATHART'S EXHIBITION HAIR DYES

To Retail at 1/-, 2/6, 3/6 and 5/6. See Price List.

To Dye instantaneous, Black, Dark Brown, Ordinary Brown, Light Brown, and Special Brown.

LEATHART'S COLORIFIC.

A Stain in one preparation; perfect, light, and ordinary browns.

To Retail at 3/6; 24/- per dozen.

EXHIBITION DYE IN BULK.

2/6, 5/-, 10/-, 21. Five Colours.

ONE PREPARATION IN BULK.

MALACCA JUICE.

Winchester (4 pints), 14/. Sample Bottle, carriage free, 1/6.

AN ORIGINAL PREPARATION. QUICK IN ACTION.

179 Ladbroke Grove Road, Notting Hill, LONDON, W

N.B.—Price List will be forwarded.

Starching made easy and pleasant.



Prevents the iron sticking to the linen.

Suitable for hot or cold water starch.

Sold in 1d., 3d., 6d., and 1s. Packets, and in Large Boxes, for Hotels, Laundries, &c., 5s., 10s., and 20s. each.

Wholesale by Maw & Sons, Evans, Sons & Co., Southall Bros. & Barclay, Wyleys & Co., &c.

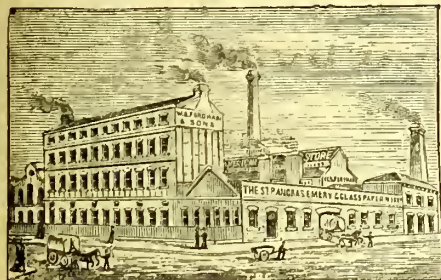
BY APPOINTMENT TO THE ROYAL DOCKYARDS. GOVERNMENT AND RAILWAY CONTRACTORS.

W. B. FORDHAM & SONS,**ST. PANCRAS EMERY AND GLASS PAPER WORKS,
York Road, King's Cross, LONDON, N.,**

Two minutes from Midland, Great Northern, and King's Cross Metropolitan Railways.

Established 1825. Telephone No. 7514.**MANUFACTURERS OF**

Glass Paper, Emery and Glass Cloth, Knife Boards, Knife Powder, Wood Taps with Square Corks, Furniture Polish, Plate Powder, Crocus, Tripoli, Rouge, &c.

Sole Agents for the United Kingdom for **GARD & Co.'s POLISHING CLOTHS.**Sole Agents for London and Suburbs for **CANNON'S SIZE POWDER.**Sole Agents for London and Suburbs for **CANNON'S GLUE POWDER.**Sole Agents for London and Suburbs for **JAMES' DOME BLACK LEAD.****GLUES and GELATINES, Upwards of One Hundred Tons in Stock.****THE "VARIETY" PARAFFIN LAMP.**

Assorted Colours Flint, neat in appearance, very attractive and useful, with extra strong Burners, fitted with Cotton and Glass, complete, 4/- per doz.

Extra Glasses, 9d. per doz.

And packed in cases of 6 dozens, viz. :-

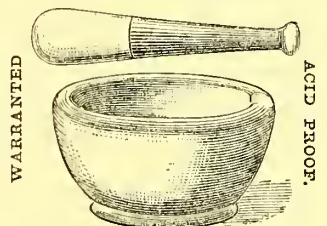
2 dozen Clear Flint, 1 doz. each Blue, Green, Violet, and Amber, and 2 dozen extra Chimneys.

Per case, 22/6. Case free.

Also a choice selection of Benzoline, small Paraffin, and other Lamps kept in stock.

A LIST SENT ON APPLICATION.**MORTARS & PESTLES.**

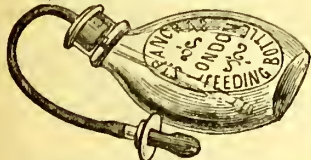
Wedgwood Ware.



Inches	4	4½	5½	6	7	8
Doz.	12/6	14/-	15/6	17/-	29/-	34/-

Inches	9	10	11	12
Doz.	42/-	50/-	68/-	83/-

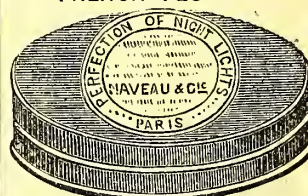
The sizes are outside measurement across the top. Pestles alone, one-third, mortars alone, two-thirds, of List Prices.

NEW TOILET FIXTURE.Extra Super Brass-faced
FIXTURE
and 1,000 Sheets
Patent Perforated
Paper, complete,
13s. 6d. per doz.Rolls of Paper,
Separate 1,000 Sheets
9s. per doz. Rolls.**FEEDING BOTTLES.**Best White Glass, Bent or Straight, China or Wood Top, 2/6 per doz.
Second quality (green tint), Bent or Straight, China or Wood Top, 2/4 per doz.
In 1 dozen counter boxes.**LIGHTING TAPERS, &c.**

No. 1. Large White, 22 inches long, in 1 lb. fancy boxes, per lb.	1/2
2. Medium White, 18 in. "	1/2
3. Small White, 12 in. "	1/2
4. Small Coloured, 12 in. "	1/2
5. Telescope, Fancy Tin 6d. Short ..	per doz. 4/-
6. Ditto ditto 1/- Long ..	8/-

CHRISTMAS CANDLES (FLUTED).

Best quality, ½ lb., cardboard boxes, 60 to 100, assorted colours, per doz. lbs., 9s. 6d.

All our TAPERS of superior quality, feathered ends.**FRENCH FLOATS.**BEST MAKE.
6d. and 1/- boxes, 2/6 and 5/- doz.**GERMAN METAL CLEANING
AND
POLISHING POMADE.**Trade Mark—Helmet, with Flowing Plume.
1d. 2d. 4d. 6d. 1/- Tin Boxes.
8d. 1/3 2/6 3/6 7/- per Dozen.**SAND SOAP.**

(SUPERIOR QUALITY).

IN BALLS OR TABLETS.

Assorted Colours in each dozen.



In 4-oz. Balls ... per Gross, 5/-

In 6-oz. Balls ... " 6/-

Full-size Tablets... " 7/6

THE

CALIFORNIAN GOLD LIQUID,A Beautiful Gold Ink,
and an Excellent Gold Paint.

Penny Bottles, 8/- per gross.

Threepenny, on cards, 1/9 per dozen.

Sixpenny, each in box with brush,
3/6 per dozen.

PAINTS. VARNISHES. WOOD STAINS.

VIENNA.

READY-MIXED PAINTS,

In 1, 2, 4, 7, and 14 lb. Tins.

These goods are packed in the "Patent Self-opening Tins," which require no cutting. Tins painted to correspond with contents, and enclosed in printed wrappers.

28 USEFUL and SALEABLE TINTS,

Guaranteed to Dry Well.

**HANDSOME SHOW
BOARDS**

(Framed and Glazed), with Specimens of the Colours, supplied.

**ICES AND SAMPLE CARD
ON APPLICATION.****THOMAS S. JACKSON & SONS,**

MANUFACTURERS OF

OIL VARNISHES

(Every description).

JAPANS.

BRUNSWICK AND BERLIN BLACKS.

TEREBINE.

FRENCH POLISH.

WHITE AND BROWN HARD SPIRIT
VARNISHES.

KNOTTING. LACQUERS.

DRYERS and
GROUND COLOURS } of the finest
quality.

DRY COLOURS, all Prices and Shades.

**IMPORTERS OF OCHRE,
ULTRAMARINE, &c.**

LONDON.

WOOD STAINS,**"SPECIAL."**

MAHOGANY, OAK, WALNUT

SATINWOOD,

ROSEWOOD, EBONY.

Draught, or packed in 6d. bottles (8 oz.),
capsuled and wrapped. Also in powder.**SHOW BOARDS,**With specimens of the Stained Woods,
supplied.The demand for these Stains is steadily
increasing. They possess great richness
and truth of colour, and**ARE OFFERED AT A REASON-
ABLE PRICE.***NOTICE.—All communications should be addressed to the Office—***LAYTON'S BUILDINGS, 199 HIGH STREET, SOUTHWARK, LONDON, S.E.**

There is no connection with any firm of a similar name.

ESTABLISHED 1853.**CERTIFICATE OF MERIT, LONDON, 1881.****W. H. LLOYD & CO.,**

PATENTEES & MANUFACTURERS OF EVERY DESCRIPTION OF

BRONCHITIS KETTLES, FOOD WARMERS, NIGHT LAMPS & SPIRIT LAMPS.

HIGH STREET, HARBORNE, BIRMINGHAM.

Wholesale Agents: S. Maw, Son, & Thompson, London.

ACETIC ACID**SCOTT & CO.,** ESTABLISHED 1863.
Stratford, London, E.ALSO
Flowers of Sulphur (Sulph. Sub.) } "Crown"
Virgin Roll and Rock Sulphur } Brand.

Sulphurous Acid and other Mineral Acids, &c.

First Class Medal, New Zealand, 1882; First Prize Medal, New Zealand, 1883; Cork, 1884.

**PHILLIPS & SONS'
DANDELION COFFEE.**

Castle Square, SWANSEA; 34 Eastcheap, LONDON.

*Note London Address, having no connection with a Retail Firm of same name. Established 1760.***INDEX TO ADVERTISEMENTS,**

Pages 39 and 40.

HORSE, CATTLE, AND SHEEP MEDICINES.

BY ROYAL APPOINTMENT.

**DAY, SON & HEWITT,**

INVENTORS AND SOLE PROPRIETORS OF THE

"ORIGINAL" STOCK BREEDERS' MEDICINE CHESTS.

For all Disorders in Horses, Cattle, Calves, Sheep, and Lambs.

Patronised for 50 years by Royalty, and the principal Stock Breeders, Horse Proprietors, and Agriculturists of the British Empire.

The No. 2 MEDICINE CHEST contains the following matchless remedies:—

"CHEMICAL EXTRACT," for all External Injuries, and Ewes Lambing.

"GASEOUS FLUID," for Colic, Scour, or Diarrhoea, and Debility.

"RED DRENCH," for Cleansing Cows and Ewes, and for Inflammation.

"RED PASTE BALLS," for Mares after Foaling, and Conditioning Horses.

"BRONCHOLINE," for Husk or Hoose in Sheep, Lambs, and Calves.

"GASEODYNE," for Heaving and Paining, "CARMINATIVE CHALK," &c.

Price of Chest, with Guide to Farriery, £2 16s. 6d. No. 1 Complete Medicine Chest, in Polished Case, £6 6s. Horsekeeper's Chest, No. 4, £2 17s. 6d.

CARRIAGE PAID TO ALL PARTS OF THE BRITISH ISLES.

Admirably adapted for all ordinary ailments among Stock, and each preparation can be had separately. Full and easy directions enclosed.

Awarded "Certificate of Merit" by the National Agricultural Society of Victoria, Australia, 1871; President's Medal, Spalding, 1872; Silver Medal, Manchester and Salford Show, 1874; Silver Medal, Preston, 1875; Silver Medal, Stamford, 1875; Silver Medal, Crewe, 1875; Special Prize, National Agricultural Society of Victoria, Australia, 1875; Medal, Chester, 1876; Silver Medal, South African Exhibition, Cape Town, 1877; Silver Medal, Newcastle-on-Tyne, 1877; Silver Medal, Knutsford, 1878; Medal, North Berwick, 1878; Medal, Dairy Show, London, 1878; Silver Medal, Derby, 1879; Silver Medal, Wellingborough, 1879; Medal, Bentham, 1880; Medal, Melbourne Exhibition, 1880; Silver Medal, Stourbridge, 1881; Silver Medal, Doncaster, 1882; Gold Medal, Christchurch, New Zealand, 1882; Silver Medal, Canterbury, 1882; and Silver Medal, Kettering, 1883.

CAUTION.—Beware of Imitations, and see that the name of DAY, SON & HEWITT is on all Bottles and Packets.

Prepared only by DAY, SON & HEWITT, 22 DORSET STREET, BAKER STREET, LONDON, W.

And sold by Messrs. Bnrgoyne, Burdidge & Co., Barclay & Sons, W. Edwards, Newbery & Sons, Sanger & Sons, Hovenden & Sons, and all Wholesale Druggists, in London; Hood & Co., Melbourne; Kempthorne, Prosser & Co., Dunedin and Auckland; Fairthorne & Co., Launceston.

LARD,SUITABLE FOR SHEEP OR CATTLE OINTMENT,
31s. to 42s. per cwt.**JNO. COOPER, Lard Refiner,**
CHURCHGATE, LEICESTER.**EVANS, GADD & CO.,**

97 TO 100 FORD STREET, EXETER,

WHOLESALE DRUGGISTS

AND
Dealers in Patent Medicines, Druggists' Sundries, Stationery, and every requirement for Chemists and Druggists.

Monthly Prices Current sent on receipt of Trade Card.

DRUGS, CHEMICALS, PHARMACEUTICAL PREPARATIONS.**GABRIEL & TROKE,**Wholesale and Export Druggists and Manufacturing Chemists,
82 CITY ROAD, LONDON.**GABRIEL & TROKE'S
REGISTERED CAPSULED HORSE BALLS.**DOG
BALLS.OSTRICH
BALLS.Manufactured solely by GABRIEL & TROKE,
WHOLESALE DRUGGISTS, 82 CITY ROAD,
LONDON.MANUFACTURERS OF ALL VETERINARY PREPARATIONS, EVERY KIND OF
VETERINARY INSTRUMENTS AND SUNDRIES.

SAMPLES AND SPECIAL QUOTATIONS FOR LARGE BUYERS.

The superior advantages of these Balls are obvious. The mass is confined in a hermetically sealed gelatinous Capsule, perfectly harmless, and immediately dissolved in the stomach. The Capsule will not only prevent the Ball from getting dry and hard, but will preserve its purity and power for any reasonable time, and ensure the effectiveness of the medicine—especially when such drugs as Camphor Ammonia or Essential

Oils are prescribed. These Capsuled Balls are most convenient and safe and well adapted for export, keeping good in any climate. They are put up in Boxes of 1 dozen each. Capsuled Balls of the most approved formulae on hand, and private recipes faithfully and accurately dispensed. Shipping orders promptly and carefully executed, and at lowest market prices. Price Lists of a very extensive character in the most handy referable style on application.

A PROFITABLE AGENCY.

We are willing to post the district, distribute handbills, and send the first parcel on sale or return.
TERMS ON APPLICATION.

STURTON'S UNIVERSAL PIG POWDERS,

Sold in Boxes, 6d. and 1s. each. Once used, customers ask for them again.

STURTON'S**ROYAL BUTTER POWDER, CREAM AND MILK PRESERVER,**

Put up in Boxes, 6d. and 1s. each. Have had many testimonials to its efficacy.

STURTON & SONS, Manufacturing Chemists, PETERBOROUGH.

DENNIS'S CELEBRATED LINCOLNSHIRE PIG POWDERS.

THESE POWDERS have now been before the Public for Thirteen years. The large and increasing sale, together with the numerous testimonials constantly being received, prove that the public are fully alive to the fact that they are the **BEST MEDICINE** for DISEASES to which PIGS are subject, and are also the best **CONDIMENT** known. The publicity given to this preparation ensures a good sale wherever introduced, and the Proprietor is desirous to assist all who will undertake to keep them in stock by supplying them with Show Cards, Posters, and Counter Bills, with name and address thereon. They are put up in Packets containing half-dozen and one-dozen Powders, and Retail at Fivepence and Tenpence. The Fivepenny Packets in two dozen and three dozen, and the Tenpenny in one dozen boxes. Retailers will be charged 40/ per gross for Fivepenny, 80/ per Gross for Tenpenny Packets, less 10% One Month, by

W. Sutton & Co.; Harvey Newman & Co.; Thompson, Millard & Co.; Hovenden & Sons; Barclay & Sons; Sanger & Sons; Newbery & Sons; and W. Edwards & Son, London; A. Woodcock, Norwich. R. Daniels, Derby. Goodall, Backhouse & Co.; Hirst, Brooke & Hirst, Leeds. Lofthouse & Co., Hull. Raimes & Co., York; and from all Wholesale Houses;

OR FROM THE PROPRIETOR, **JOHN W. DENNIS, CHEMIST, LOUTH, LINCOLNSHIRE, ENGLAND.**



Handbills, &c., with Name and Address, by Parcel Post.
Wholesale of **BARCLAY, SANGER, EDWARDS, HOVENDEN, &c.**
Manufacture: **BIGGLE-WADE, BEDS.**



TRADE MARK
REGISTERED.

All Orders by Post receive immediate attention.

LEECHES!

Warranted Healthy, Wholesale and for Exportation, Direct from Marshes.

FITCH & NOTTINGHAM,
Leech Breeders,

MARSEILLES, & 55 PENTONVILLE ROAD, LONDON, N.

CHEMISTS PLEASE NOTE.**DOG MEDICINES MADE BY SPRATTS PATENT.**

CURE FOR DISTEMPER, price 2s. 6d. per box, or post paid 2s. 8d.

Cure for Mange; Cure for Canker of the Ear; Liniment for Sprains, Rheumatism, &c.; and Stimulant for the Growth of Hair. Price 1s. per bottle.

Cure for Worms, Purging Pills, Alterative Cooling Powders, Cure for Rheumatism and Kennel Lameness, Cure for Jaundice or Yellows, Tonic Condition Pills, and Cough Pills. Price 1s. per box, or post paid 1s. 2d.

DIARRHŒA MIXTURE. ECZEMA LOTION. Price 1s. 6d. per bottle.

TASTELESS APERIENT BISCUITS, 2s. per box, or post free 2s. 2d.

DOG SOAP; POULTRY, CATTLE, AND GAME MEDICINES.

"THE COMMON SENSE OF DOG DOCTORING," price 6d., or post free 8d., contains 120 pages of thoroughly Practical Information with regard to the Treatment of Canine Diseases, and Breeding and Rearing of Dogs, and has a most ready sale.

TRADE TERMS OF SPRATTS PATENT S.E. OR ALL WHOLESALE HOUSES.

INDEX TO ADVERTISEMENTS,

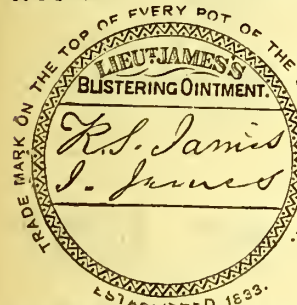
HORSES.—LIEUT. JAMES' BLISTER



(Manufactured by R. J. JAMES, the Grandson of the Inventor.)
THIS CELEBRATED BLISTER IS NOW OFFERED TO THE TRADE AT THE FOLLOWING REDUCED PRICES:—
1 oz. pots from 14/- per doz. to 12/6 per doz. | 1 lb. pots from 24 4 0 per doz. to 24 0 0
2 " " 2 8 0 " | 1 " " 7 16 0 "

Observe the Trade Mark.—"A Horse's Head on the top of each Pot, and the signature, R. J. James."
Wholesale Agents, BUTLER & CRISPE, 4 Cheapside; NEWBERRY, 37 Newgate Street; MAW, SON & THOMPSON, 11 Aldersgate Street; HAYES & Co., Dublin; GOULDING, Cork; FOGGITT, Thirsk; and SANG & BARKER, Edinburgh. Agents for the Colonies required. Apply, with reference, to R. J. JAMES, South Retford, Notts.
JAMES v. JAMES.—LORD ROMILLY, the Master of the Rolls, on February 23, 1872, declared "that I had an equal right with other members of the Inventor's family possessing the receipt to make and sell this Blister."—R. J. JAMES.

ESTABLISHED 1833. HORSES.—LIEUT. JAMES' BLISTER.



CAUTION.

The annexed Label is at the top of every Pot of the ORIGINAL and only GENUINE BLISTER.

The Messrs. Barolay & Sons, 95 Farringdon Street, London, and Messrs. Raimes & Co., Edinburgh, Liverpool, and York, are now and have been Agents 49 years.

AGENTS:—Benton & Co., 10 Bow Churchyard; W. Edwards & Son, 187 Queen Victoria Street; Newbery & Son, 37 Newgate Street; Evans, Lescher & Evans, Bartholomew Close; Burgoyne, Burdidge & Co., 16 Coleman Street; Lynch & Co., 171A Aldersgate Street; Southall Brothers and Barclays, Birmingham; R. Hovenden & Sons, 93 & 95 City Road, Finsbury; Sanger & Son, 160 Oxford Street; Millard & Sons, 40 Charterhouse Square; Corry & Soper, Shad Thames; A. A. Campbell, Leadenhall Street, London; Woolley, Sons & Co., 59 Market Street, Manchester; Apothecaries Company, Virginia Street, Glasgow; Boileau & Co., Bride Street, Dublin; McMaster & Co., 121 & 122 Chapel Street, Dublin; Clarke & McMullen, Victoria Street, Belfast; D. Galbraith Londonderry; M. C. Delacre, Pharmacie Anglaise, Bruxelles. And by all Chemists, in Pots, 1/6, 2/9, 5/1, 9/1, and 16/1.

COLONIAL AGENTS:—MELBOURNE and WELLINGTON: Felton, Grimwade & Co.; SYDNEY, BRISBANE, and LAUNCESTON: Elliott Bros. & Co.; DUNEDIN and AUCKLAND: Kempthorne, Prosser & Co.; CALCUTTA: Smith, Stanistreet & Co.

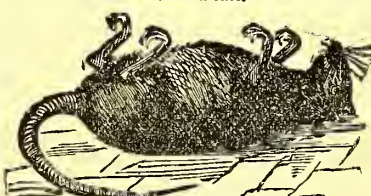
W. H. JAMES, Sole Manufacturer, STANFORD, FARMINGDON, BERKS. Adverted in "Bell's Life" 49 years. Beware of Spurious imitations.

100 Rats destroyed for a Shilling by BARBER'S PHOSPHOR PASTE,

WRAPPED NEATLY FOR THE COUNTER.

Handsone, attractive Posters supplied; if conspicuously placed will command constant sale.

Kills Rats, Beetles,
&c.
THE DEAD VERMIN
DRY UP
WITHOUT SMELL.



Guaranteed the best
destroying Paste in
the world.

3d., 6d., 1s., 2s. 6d., and 5s. Tins. Also

BARBER'S VERMIN KILLER,

In 3d., 6d., and 1s. Packets. Kills Mice upon the spot.

Testimonial from Her Majesty's Ratcatcher, Hampton, Middlesex,
May 25, 1870.—

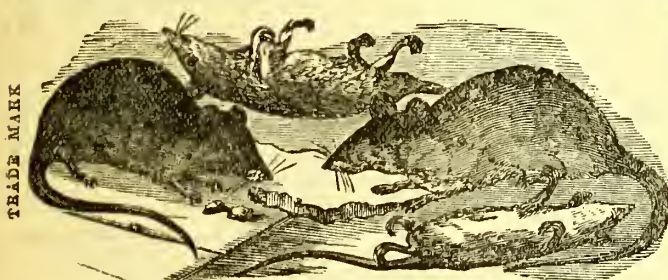
"I have been more than forty years employed at Hampton Court Palace, the Royal Stables, and other buildings in and around the Royal Parks, for the destruction of rats, mice, and other vermin. I have the entire charge of this duty, and after trying all the rat poisons which I have heard of at different times, I now use Barber's Phosphor Paste, and Vermin Killer, with which alone I am able to keep these ancient places and national works free from vermin. Signed, CHARLES SHONES."

ASK FOR BARBER'S, AND SEE THAT YOU GET IT.

WORKS, SALISBURY. ESTABLISHED 1838.

Special Quotations to Shippers. Supplied by all the London Wholesale Houses.

BATTLE'S VERMIN KILLER.



Mice eat it readily, and
Die on the spot.

Has an immense Sale, and wherever introduced never fails to give satisfaction.—Mice appear attracted to it as by magic, eat it readily, tumble over, and die on the spot. Rats usually die in their runs.—Parties troubled with Vermin may be cleared at once, either from Stacks, Houses, or Ships.

TESTIMONIALS.—Thousands might be published.

From Mr. THOMAS COLTON, Agent for Selby.—A friend of mine purchased a Packet of your VERMIN KILLER last night, doubting its efficacy; to-day he called in to say that he had found fifteen dead mice, and had only used part of a packet.—From Mr. EDWARD STURDY, Flemington Mills.—I duly received by post the Packet of your VERMIN KILLER, and found it as represented in your advertisement. It speedily destroyed all the mice in my granary. I enclose 2s. for two more Packets.—Leeds, November 6th, 1857.—I have tried BATTLE'S VERMIN KILLER, and have found it most effectual in clearing my premises of LARGE QUANTITIES OF RATS.—THOMAS S. CROSLAND.—Mr. Stead.

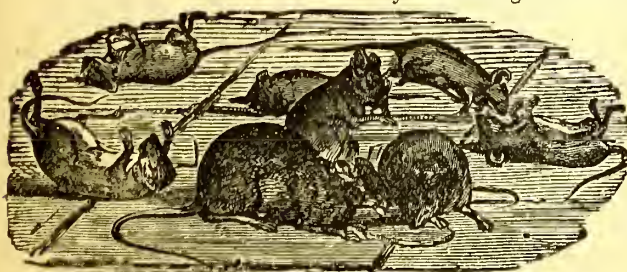
Sold in Packets, 3d., 6d., and 1s. each.

SOLE PROPRIETOR:

Mr. J. R. BATTLE, Chemist, Lincoln, England.
No Chemist or Storekeeper should be without a supply.

SANFORD'S RAT POISON!

Is admitted by Hundreds that have used it to be the best Preparation known. 120 rats were found dead by one dressing. Has never been known to fail.



SANFORD & SON, having had 28 Years of Practical Experience in Poisoning Rats, Mice, &c., can with confidence recommend it as the Best Preparation known.

Read the following Testimonials, which have been selected from many that have been received:—

SANFORD'S RAT POISON.—It is undoubtedly the best preparation known. It does not require spreading on bread, as is usual. Rats eat it readily, and are found dead.

Mr. SANFORD, Sir.—Your Rat Poison answers well. I found 24 rats killed by it.—F. FOWLER, Farmer, Henlow.

Mr. SANFORD, Sir.—I find your Rat Poison very effective: it killed 120 rats in my wheat stacks.—J. U. PAINE, Farmer, Caxton.

Mr. SANFORD, Sir.—Your Rat Poison is the best I ever used: it answers well.—J. LONG, Farmer, Henlow.

Sold at 6d., 1s., 2s., and 3s. per Box, with Directions for use.

A TRIAL SOLICITED.

SANFORD'S MICE POISON, For Houses, Buildings, Corn Stacks, &c. Cannot be excelled. In Packets, 3d., 6d., and 1s. each, of Chemists or of the Proprietors.

SANFORD & SON, SANDY, BEDS.

LIBERAL TERMS TO CHEMISTS.

Wholesale of BARCLAY & SON, SANGER & SON, NEWBERRY & SONS, and others.

HAND BILLS AND SHOW CARDS FREE.

BY HER MAJESTY'S ROYAL LETTERS PATENT.

PROFESSOR TUSON'S DISINFECTANTS, DEODORISERS & ANTISEPTICS. LIQUID AND POWDER.

These Preparations are the Invention of Prof. TUSON, of the Chemical Laboratory, Royal Veterinary College, Camden Town.

THE LIQUID is a solution of one of the most powerful non-volatile disinfectants impregnated with the BEST gaseous disinfectant.

THE POWDER, when exposed to the air, but more rapidly when damped with water, or when applied to litter, manure, or other moist substances, evolves the same gaseous disinfectant as the liquid.

Both preparations fix ammonia, prevent putrefaction and the spread of infectious diseases, DESTROY (not merely mask) bad smells, and LEAVE NO SMELL of their own. These combined qualities render them superior to, and unlike, every other disinfectant hitherto invented.

THEY WILL BE FOUND INVALUABLE in Houses infected with Cholera, Fever, Small-pox, Measles, &c.; in Hospitals, Dissecting Rooms, Ships, Factories, Stables, Cow-sheds, Dairies, Larders, Piggeries, Slaughter-houses, Kennels, Urinals, Privies, Cesspools, Water-closets, Sewers, Drains, Manure Heaps, &c.

Note.—For use in Water-Closets, Sinks, Drains, and the like, preference should be given to the Liquid, as the choking of soil-pipes, &c., by solid Disinfectants is thereby entirely avoided.

SOLD BY ALL CHEMISTS.

WHOLESALE AGENTS:—

BAISS BROTHERS & CO., Jewry St., London, E.C.

SOLE MANUFACTURERS:—

A. BOAKE & CO., Stratford, London, E.

CATTLE MEDICINE

ESTABLISHED MORE THAN FIFTY YEARS.

USED AND RECOMMENDED BY UPWARDS OF 20,000 AGRICULTURISTS.

CORNER'S PINE'S DEVONSHIRE OILS

For Outward and Inward Application, is the best and cheapest remedy for any ailment Stock is liable to, and no stable, farmyard, or shepherd should be without them.

Cattle and Horses.—As an Embrocation or Drench for MUD FEVER Bruises, Swellings, Sprains, SWOLLEN UDDERS of COWS, the Scour in Calves, Internal and External Inflammations, Butts, &c., Wounds or Galls of any kind. **WINE SIZE, 2s.**

Lambing.—Invaluable to the Shepherd during Lambing, for Colds, Inflammations, Cleansing, Udder-ill, Scour, &c.

In Sheepshearing, for Cuts, Sores, or Sprains.

For the Fly and Maggot in Sheep.—Nothing can surpass their value in summer for healing the worst Sores caused by the Fly, at the same time invigorating the growth of Wool.

Sole Proprietor, **RICHARD CORNER, Wellington, Somerset.**

* * * Anyone vending an article purporting to be **PINE'S DEVONSHIRE OILS**, without his Signature on the bottle, will be proceeded against.

Supplied by all Wholesale Houses, of whom Bills, Posters, and Show Cards can be had.

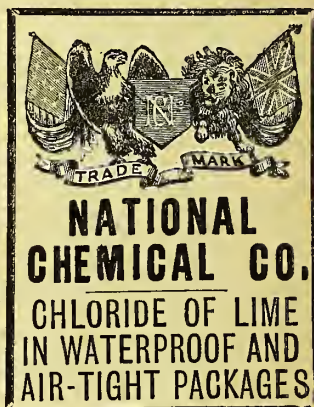
Any Chemist, on application to **THOMAS KEATING, Chemist, St. Paul's Churchyard, London**, can have these sent for enclosure to his London Wholesale House. The Bills are plain on one side, printed on four different colours, large enough to wrap a 6 oz. bottle. Two or three weeks' notice is required. Please send two labels that printer may add name and address correctly.

SILVER MEDAL Awarded, I. H. E., 1884

CHLORIDE OF LIME IN PACKAGES.

Waterproof,
Air-tight, Neat,
Clean, and
convenient for use.

Odourless,
and retains its strength
unimpaired, and
will keep for years in
any climate.



		Per Box.
24-lb. BOXES, containing	24 1-lb. Packages	6/6
Ditto ditto	48 ½-lb. ditto	7/0
Ditto ditto	96 ¼-lb. ditto	8/0
Ditto ditto	1-lb., ½-lb., & ¼-lb., assorted	7/3
Ditto ditto	1 Gross Penny Packages	8/0

		Per Case.
50-lb. CASES, containing	50 1-lb. Packages	13/0
Ditto ditto	10 5-lb. ditto	13/0
Ditto ditto	100 ¼-lb. ditto	14/0
Ditto ditto	200 ½-lb. ditto	16/0
Ditto ditto	1-lb., ½-lb., & ¼-lb., assorted	14/6

Also in 1 cwt. and ½-cwt. Cases, to meet the requirements of large buyers and the Export Trade.

A Liberal Discount allowed on all Orders of 5 Cases or 10 Boxes and upwards. Special Quotations for Contract or Large Orders.

Sample Box or Case can be had from any London or Country Wholesale Druggists. All Goods Delivered Free in London.

Write for Prices of the N. C. Co.'s Chloride of Lime in Jars, Bottles, Tin Boxes, Casks, Cases, etc.

NATIONAL CHEMICAL CO.,
29 Suffolk Grove, Gt. Suffolk St., Southwark, S.E.

QUILLAIA.

A thoroughly good article for Cleansing Fabrics.

Paint, Pitch, Grease Spots, &c., Easily and
Instantly Removed.

NO MORE VILE BENZINE !!

QUILLAIA is Snow-white, and is delightfully fragrant.

Metallic Boxes ONE SHILLING at Retail

WHOLESALE OF LEADING LONDON HOUSES.

THIRTY-EIGHT YEARS' REPUTATION.

CANNOT BE EXCELLED.

NEATLY AND CAREFULLY PUT UP.

KILLS RATS & MICE ON THE SPOT.

TESTIMONIALS.

From Mr. James Froud, Chemist, Dorchester:—"Your poison succeeds to admiration. It is as effective as an infernal machine."

From Mr. Smith, Chemist, Glasgow:—"I have not kept any other 'Vermin Killer' than yours for the last four years. It is the best I ever sold."

From Mr. George Eagle, Merriekville, Sydney, Australia, to Mr. Mitchell, Druggist, Pitt Street, Sydney:—"Sir,—I promised to let you know how 'Hunter's Vermin Destroyer' acted. Its effect was wonderful; in one night it destroyed all the rats and mice about my house, which was swarmed with them."



TESTIMONIALS.

From Messrs. P. Smith & Co., Chemists, Runcorn, Oct., 1880:—"In our opinion your 'Destroyer' is the best extant."

From Mr. James Thompson, Low Heskett, near Carlisle, to Mr. R. F. Pattinson, Chemist, Carlisle:—"Sir,—You can with confidence recommend 'Hunter's Vermin Destroyer.' It is the best thing I ever used, having often cleared stack-yards with it of both rats and mice in a day or two."

From Mr. Edward Thornton, Chemist, Lyme Regis:—"I can bear testimony to the efficacy of your 'Killer.' Parties who have purchased it of me say that it is the best they have tried. Mice are rapidly destroyed by it, and it quite answers the description you have given of it."

A RESPECTABLE AND SATISFACTORY ARTICLE SUPPLIED TO
RETAILERS, ON THE BEST TERMS, BY ALL THE

WHOLESALE HOUSES.

PRINCIPAL WHOLESALE DEPÔT—

DEWSBURY, ENGLAND.

ESTABLISHED 1846.

T. KERFOOT,

MANUFACTURING PHARMACEUTICAL CHEMIST,

MEDLOCK VALE WORKS, MANCHESTER.

Manufacturer, by Special Process, of every description of Superior Medicated Lozenges, Medicated Jujubes, Candies, and Boiled Sugars; also Granular Citrate of Magnesia, and all Granular Preparations.

SPECIAL COUGH LOZENGES.

The "Special Cough Lozenges," introduced in the winter of 1882, have had a remarkable sale; they have a peculiar and distinctive flavour and colour, and are free from all opiates. They contain *Verbascon Thapsus*, Squill, Ipecac, Tolu, Benzoic Acid, &c., and are an agreeable and efficient Cough Lozenge. They may be given with equal safety to children and adults. The Special Cough Lozenges can be stamped with customer's own name in quantities of 7 lbs. and upwards. Price 1s. 6d. per lb.

ENGLISH BRONCHIAL LOZENGES.

These are superior both in flavour and efficacy to the American lozenges, and always amply repay the trouble of introduction. Although they contain NO OPIATE they are an efficient Cough Lozenge, and for the use of Singers they are unique.

COMPRESSED CHLORATE OF POTASH PEARLS.

Unlike most articles of this class *now in the market*, the Pearls are made by steam-driven machinery of great power; they are extremely hard, and hence, dissolving more slowly in the mouth than other kinds, the local action is longer maintained and the beneficial effect much enhanced. 6d. boxes, 3s. per doz.; bulk, 3s. 6d. per lb.

COUGH DROPS.

Superior quality, 8d. per lb. Special cash quotations for large buyers.

An endless variety of Highly-finished Medicated Lozenges and Jujubes of every description. Price Lists free on application.

T. KERFOOT,
MEDLOCK VALE WORKS, MANCHESTER.

KERFOOT'S

CHLORODYNE

AND

CHLORODYNE LOZENGES.

The attention of the Trade is solicited to the above well-known preparations. Having unusual facilities for their manufacture upon a large scale, I can offer great advantages both in quality and price.

T. KERFOOT, MEDLOCK VALE WORKS, MANCHESTER.

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(ESTABLISHED 1830),

MEDICAL AND GENERAL

SHOP FITTERS,
WRITERS, DECORATORS, &c.

SEND FOR OUR ILLUSTRATED LISTS.

Best Manufacture and Seasoned Wood.

£50

COMPLETE FITTINGS

FOR

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FOR

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SAVAGE & ADAMS, St. James's Street, Brighton.
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Mr. TULLY, 185 St. George's Road, West Hill, Hastings.
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J. & W. BYGRAVE,

SHOP FITTERS

AND

SHOW CASE MANUFACTURERS,
12 Curzon Street, Wenlock Street,
HOXTON, LONDON, N.

NOTICE OUR REASONABLE TERMS.

No charge for packing or fixing, and all goods sent carriage paid. All measurements of shops will be taken free of charge within 200 miles of London.

NOTICE.—The Best and Cheapest Manufacturers in the Trade.

Chemists and Druggists Shops fitted in country same price as in town.

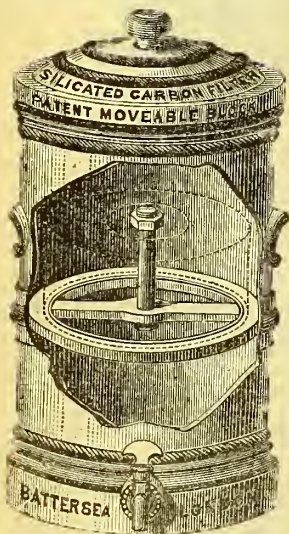
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WILKINSON & SIMPSON, Newgate Street, Newcastle-on-Tyne. A handsome Shop.
Mr. FELLOWS, 49 Hertford Street, Mayfair, London, W.
Mr. KAY, 143 Northend n, Sale, Cheshire.
Mr. DYER, High Street, Honiton, Devonshire.
Mr. SAUNDERS, Orford Road, Walthamstow.
Mr. RUTTER, Annandale Road, Turnham Green.
Mr. JOHNSTONE, Byker, Newcastle-on-Tyne.
Mr. WHITE, 1 New Road, Commercial Road.
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Mr. HARRIDGE, Oatland Park, Weybridge.
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SILICATED CARBON

PATENT MOVEABLE-BLOCK FILTERS.

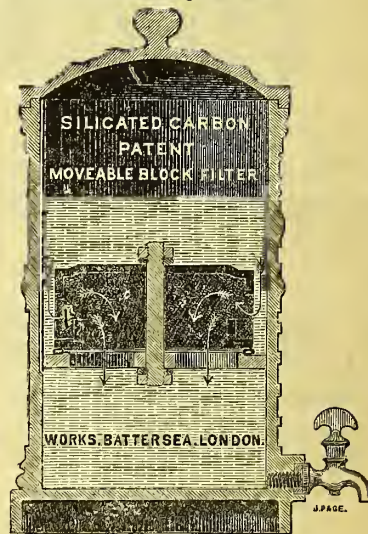
These Filters are constructed on Scientific principles, and can be renewed or repaired by the user without returning to the maker. They possess all the advantages of those with fixed filtering mediums, while the simple removal of the Silicated Carbon Block leaves the *whole* of the interior of the Filter open for inspection and cleansing. The working parts are stoneware, and corrosion is impossible.



(Elevation with Block removed.)

NO LOOSE PAN OR INNER VESSEL
TO CAUSE BREAKAGE.

The block being non-porous on the top and edges, an *upward* direction is given to the water, which thus passes through a greater thickness of the Silicated Carbon, as shown by the arrows in drawing.



(Section.)

The Silicated Carbon Block can be instantly removed, leaving the whole of the interior of the Filter *open* for inspection and cleansing.

To Cleanse the block, plunge it into boiling water, and well scrub it with a hard brush.

Extra blocks can be supplied with each Filter. All parts being interchangeable can be replaced in case of accidents.

This Patent can be adapted to all patterns manufactured by the SILICATED CARBON FILTER CO. *without increased charge.* In ordering please state "*with patent moveable block.*"

Domestic Filters (as above), in Cream-coloured Stoneware, with Plated Taps and Patent Moveable Blocks:—

No. 27. O. $\frac{1}{2}$ gal. 10/6 each.	D. 6 gals. 42/- each.
A. 1 „ 14/6 „	E. 8 „ 52/- „
B. 2 „ 21/- „	F. 12 „ 70/- „
C. 4 „ 32/- „	

Dining Room Filters, in Marbled China, with Plated Taps and Patent Moveable Blocks:—

No. 22. A. 2 gals. 35/- each.
B. 5 „ 80/- „

Refrigerative Terra Cotta do., do.:—
No. 25. 2 gals. 31/6 each.

All makes of Filters can be refitted on this principle, 1 gal. 8/6, 2 gals. 10/-, 4 gals. 12/- each. Larger sizes in proportion.

SILICATED CARBON FILTER COMPANY.

WORKS: BATTERSEA, LONDON.

SILICATED CARBON FILTERS.

SYPHON FILTERS FOR TRAVELLERS.

By means of these Filters pure and perfectly wholesome water may be drunk from any pond or stream by simply immersing the Filter therein and drawing the water through the tube by suction.

Each of these portable Filters may be



No. 20.

used as a Syphon by placing it in a vessel of water, then drawing the water by the mouth, and allowing the flexible tube to hang over the side below the Filter. When once set in operation their action is continuous.

- A.—Pocket Filter, $\frac{3}{4}$ inches diameter, in porcelain, with glass mouthpiece, in decorated metal-box 2 6
- B.—Ditto, $\frac{3}{4}$ inches diameter, in best stoneware 5 0
- C.—Emigrant's, 5 inches diameter, with silver-plated tap 12 0
- D.—Pocket Filter, for carrying over shoulder, as supplied to the Forces in Abyssinia and Zululand, and to the Ashantee and Egyptian Expeditions 3 6
- E.—Ditto, nickel-plated, designed by Major Fraser, R.E., and specially recommended by the Horse Guards for Officers' kits 5 0

TABLE FILTER,

Made of stout glass, in 1, 2, and 3 pint sizes, the filtering medium being securely fitted into the bell-funnel, so that it is not liable to become loose, or to allow unfiltered water

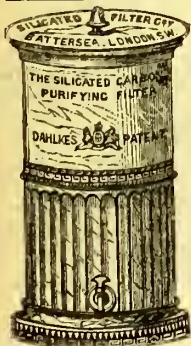


No. 24.

to pass. This Filter is peculiarly suited for the Bedroom and for Table use, affording a ready and simple means of obtaining at any time freshly-purified water.

PRICES.

No. O, 2s. 6d.; A, 4s.; B, 5s. 6d.
Engraved Vine Pattern—O, 3s. 6d.; A, 5s. 6d.; B, 7s. 6d.



DINING-ROOM FILTER, No. 22.

WITH PATENT MOVEABLE BLOCK.

MADE IN MARBLED CHINA.

PRICES.

- A .. Two Gallons 35s.
- B .. Five Gallons 80s.

The large size (B) is specially adapted for Hotels, Refreshment Rooms, Luncheon Bars, &c.

REFRIGERATOR FILTER, NO. 25,

WITH PATENT MOVEABLE BLOCK.

Made in Porous Terra-Cotta Ware,

Which acts with remarkable power as a cooler, and renders this Filter invaluable, especially in Tropical Climates,

AFFORDING A COOL DRAUGHT OF PURE WATER.

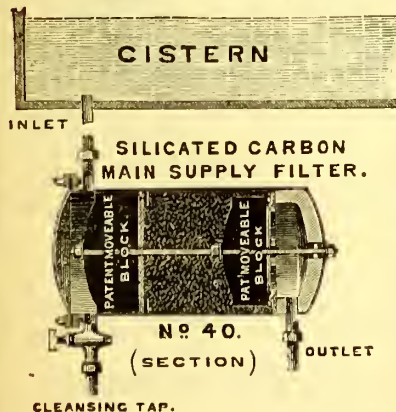
Price, with Silver-plated Tap 81s. 6d.
Capacity Two Gallons.

Specially adapted for Tropical Climates.



MAIN SUPPLY FILTER, NO. 40,

WITH PATENT MOVEABLE BLOCKS,



No. 40.

(SECTION)

OUTLET

CLEANSING TAP.

FOR MINERAL WATER MANUFACTORIES,

As used by Messrs. Schweppe, London, Liverpool, Glasgow, &c.; and most of the large makers.

Also for Schools, Hospitals, Mansions, &c.

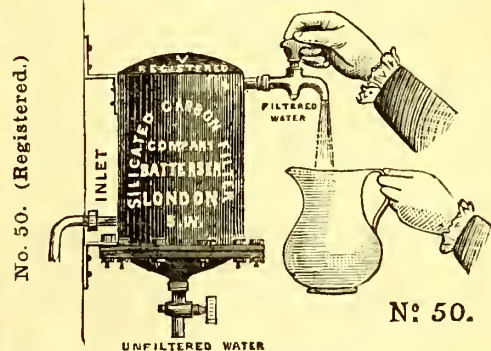
PRICES.

- For $\frac{3}{4}$ -in. Pipes £8 6s.
- „ 1-in. Pipes £9 9s.

CONSTANT SUPPLY FILTER,

WITH PATENT MOVEABLE BLOCK.

SILICATED CARBON [TRADE MARK]



No. 50. (Registered.)

No. 50.

UNFILTERED WATER

These Filters require no attention from servants, as they are always filled and ready for use. The act of drawing Unfiltered Water cleanses the Filter, by washing away the impurities collected on the carbon.

Complete, Price £3 3s. each.

FOR FULL PARTICULARS WRITE TO THE

SILICATED CARBON FILTER COMPANY,

CHURCH ROAD, BATTERSEA, LONDON, S.W.

INTERNATIONAL HEALTH EXHIBITION.

MAIGNEN'S PATENT

"FILTRE RAPIDE."

GOLD MEDAL
FOR
WATER "FILTRE RAPIDE."

SILVER MEDAL
(HIGHEST AWARD)

FOR
Wine, Spirit, Beer, and Syrup
"FILTRE RAPIDE."

GOLD MEDAL
FOR
ARMY "FILTRE RAPIDE."

SILVER MEDAL
(HIGHEST AWARD)

FOR
WATER-SOFTENING Process for Boilers
(Saving Life in Workshop).

BRONZE MEDAL (HIGHEST AWARD) FOR
MAIGNEN'S Patent "ANTI-CALCAIRE" Powder
To SOFTEN WATER for WASHING.

Full particulars in Pamphlet, "Water, Preventable Disease, and Filtration," by P. A. MAIGNEN, 32 St. Mary-at-Hill, Eastcheap, London.

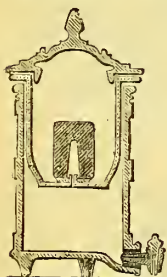
DOULTON & CO., LAMBETH, LONDON, S.E.

DOULTON'S MANGANOUS CARBON FILTERS (Dr. Bernays's Patent).

The Combination prepared under this Patent gives to the Charcoal its highest value as a
FILTERING MEDIUM.

The Filter is made in four movable parts—the body, the lining, the Manganous Carbon block, and the cover. By this means every portion of the filter may be

KEPT PERFECTLY CLEAN,
and the Manganous Carbon block may be changed as often as necessary **WITHOUT PARTING WITH THE FILTER.**



DOULTON'S IMPROVED GRANULAR CHARCOAL FILTER.

In addition to the bed of Granular prepared Charcoal, these Filters are fitted with a movable block of MANGANOUS CARBON in place of sponge. This arrangement, whilst acting as a screen for suspended matters, gives a double action to the power of the FILTERING MEDIA.

Any Description of Filter Refitted at
Moderate Charge.



DOULTON & CO. also manufacture Boudoir or Table Filters, Pocket and Syphon Filters for Tourists' use, Manganous Carbon Self-Acting Cistern Filters, Refrigerator Filters, High Pressure Filters for manufacturing purposes, &c. May be had of all Dealers.—DOULTON & CO., Lambeth, London, S.E.

M. A. CRAVEN & SON,

WHOLESALE AND EXPORT CONFECTIONERS,

MAKERS OF
Medicated Lozenges, Refined Liquorice, Jujubes, and every description of Confectionery,
IMPORTERS AND MANUFACTURERS OF LEMON, ORANGE, AND CITRON PEELS.
FOR CONFECTIONERY WORKS,
YORK.

Lozenges of all descriptions made from Customers' private formulæ (or ingredients), and stamped with any name or device.

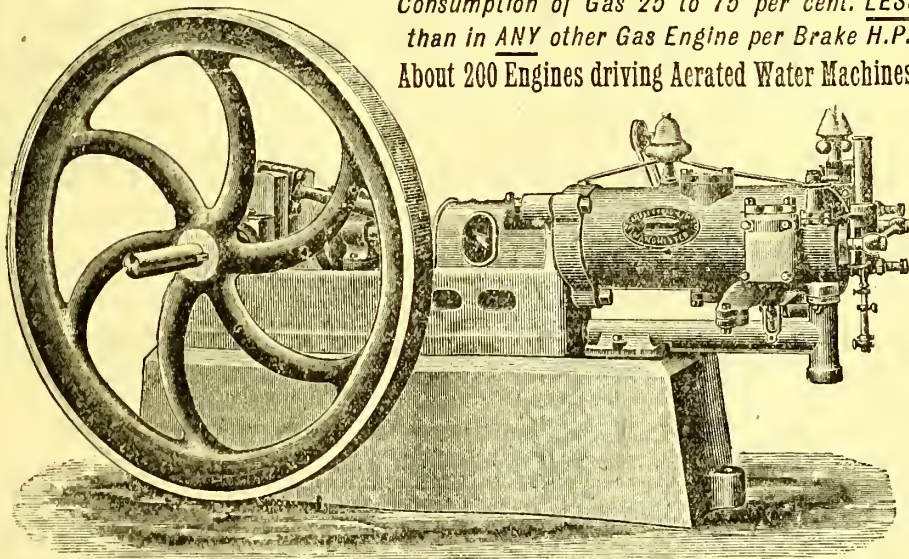
SPECIALITIES—Cough, Peppermint, Rose, Musk, Bouquet, Cachou, and all kinds of Medicated Lozenges.
ESTABLISHED 1843. PRICE LIST ON APPLICATION.

THE "OTTO" GAS ENGINE.

OVER 15,000 IN USE.

14 GOLD MEDALS. 16 SILVER MEDALS.

*Consumption of Gas 25 to 75 per cent. LESS
than in ANY other Gas Engine per Brake H.P.
About 200 Engines driving Aerated Water Machines.*



CROSSLEY'S NEW VERTICAL "OTTO" ENGINES.

Requiring very little ground space.

CROSSLEY'S PATENT SELF STARTER.

The Safest, Simplest, and Best.

CROSSLEY'S PATENT TWIN ENGINES.

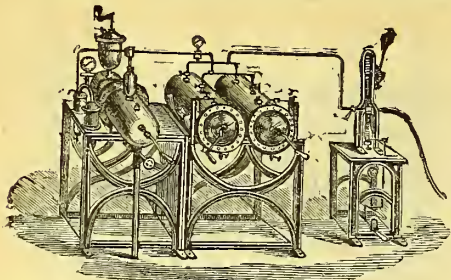
Impulse every revolution. The steadiest running Gas Engine yet made.

THE ONLY GAS ENGINE WHICH RECEIVED A GOLD MEDAL AT THE PARIS ELECTRICAL EXHIBITION.

CROSSLEY BROS., LIM., OPENSHAW, MANCHESTER

London Office: 24 POULTRY, E.C.

Glasgow Office: 58 UNION STREET.



SODA WATER MACHINE COMPLETE, WITH RACK.

SODA WATER MACHINERY, ALL KINDS. PATENT STOPPERED BOTTLES ALL KINDS.

ICE-MAKING MACHINES,

AND ALL REQUIREMENTS OF EITHER TRADE.
SEPARATE CATALOGUES, POST FREE.
BEFORE BUYING, SEND FOR CATALOGUE TO
DAVENPORT & CO., 99^N High Holborn, LONDON.

HAYWARD TYLER & CO.'S MACHINERY.
BARRETT'S PATENT BOTTLES.

ALSO AGENTS FOR

CHEAVIN'S FILTERS.

WILKINSON'S PATENT BEER BOTTLES.

CROSSLEY'S AND "BISSCHOP" GAS ENGINES.

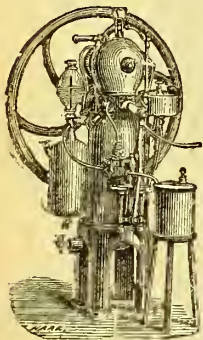
H. FAVARGER.

GOLD MEDAL]

MONDOLLOT'S PATENT

[PARIS, 1878.

SODA WATER MACHINERY.



The "MEDIUM"	is guaranteed to make extra sharp Soda Water, and the finest Lemonade, Ginger Beer, Ginger Ale, &c.
The "MEDIUM"	requires no skilled labour, and can be worked by hand or steam power.
The "MEDIUM"	saves 50 per cent. of materials over any other hand machine, and requires less power.
The "MEDIUM"	will last for years without repairs beyond the renewal of washers.
The "MEDIUM"	requires no gasometer, and occupies but a quarter of the room of an ordinary machine.
The "MEDIUM"	is automatic in all its work, and merely requires the wheel to be turned.
The "MEDIUM"	is of the finest workmanship, and is in use all over the world.

Apply for illustrated Catalogue to

H. FAVARGER, 75^C TURNMILL STREET. LONDON.

SODA WATER & ICE MAKING MACHINERY

AND ALL APPLIANCES FOR THE TRADE

BY

BARNETT & FOSTER

INVENTORS & MANUFACTURERS

NIAGARA WORKS, EAGLE WHARF ROAD, LONDON, N.

SEND FOR CATALOGUE FORWARDED FREE

The Catalogue above referred to comprises every requirement for the Chemist in the way of Manufacturing and Dispensing of all kinds of Aerated Waters. 3 Gold, 2 Silver, and 2 Bronze Medals, International Health Exhibition, London, 1884.

HAYWARD TYLER & CO.

ARE THE

ONLY FIRM

WHO HAVE BEEN AWARDED

3 GOLD MEDALS

FOR

AËRATED WATER MACHINERY,

VIZ.,

PARIS, 1878; CALCUTTA, 1884; LONDON, 1884;

BEING

THE HIGHEST CLASS IN EVERY COMPETITION.

ESTABLISHED 1815.

84 & 85 WHITECROSS STREET, LONDON.

SODA WATER MACHINERY

AND ALL ACCESSORIES.

FOR THE TRADE BY

BRATBY & HINCHLIFFE

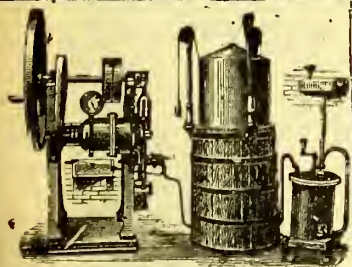
AËRATED WATER ENGINEERS & MANUFACTURING CHEMISTS

ICE MAKING MACHINERY A SPECIALITY

CATALOGUES, CIRCULARS, & TESTIMONIALS POST FREE.

FOR FURTHER PARTICULARS ADDRESS

POTT STREET, ANCOATS, MANCHESTER



VALLET'S PATENT IMPROVED STOPPERED BOTTLES,

For Mineral Waters and Gaseous Liquids,

Are now used by upwards of 1000 Soda Water Manufacturers in the United Kingdom.

PRICES (Per Gross).—Patent Stopper, as per Fig. 1, 4/6; ditto, as Fig. 6, 4/6; ditto, as per Fig. 7, 4/6; Patent Stoppered Bottles, ready for use; ditto Half Bottles; ditto; Patent Unstoppered Bottles; ditto Half Bottles; Fig. 9 Boxwood Bottle Openers, polished, 2/6; ditto, fitted with rubbers, 10/6; Common Wood Bottle Openers, 5/6; ditto, fitted with rubbers, 7/6; Fig. 10, New Bottle Opener, 6/-.

ROYALTY FREE.



Fig. 2.



Fig. 6.



Fig. 1.



Fig. 7.

It will be seen by reference to figs. 6 and 7 that I now form a button or nut under the base of my stopper for the purpose of easily extracting same from the Bottle without spoiling or removing the India-rubber from the body of the Stopper. This is readily accomplished by the use of a suitable tool made to fit on the nut; the Stopper being grasped is withdrawn from the bottle in a second, without injury to the Stopper.

Therefore, it will be a great saving to Mineral Water Manufacturers, as by the old way of extracting the Stoppers from the Bottle, when necessary, very often the India-rubber is spoiled, and the time it takes by this slow process is worth more than the Bottle itself; so that in many instances Bottles with spoiled or dirty Stoppers are put aside as worthless stock.

Figs. 1 and 6 Stoppers, when invoiced without Bottles, are ready fitted with the rubber washer on, and are easily inserted into the Bottle by the simple pressure of the thumb, the washer at the same time folding in the hollow part of the stem, when passing into the Bottle. They are the only Stoppers which require no tool to fit into the Bottle; and when a Bottle breaks, which seldom occurs, the Stoppers are always fitted with washer and ready to be inserted in a new Bottle. Therefore they are the most durable and inexpensive Stoppers in the Trade.

Sample and Particulars sent on application to

L. VALLET, 49 EVERTON RD., LIVERPOOL.

EVEN GOLD, SILVER, AND OTHER PRIZE MEDALS AWARDED.

For very superior quality, make, and special excellence in finish.

THE BRITISH SYPHON

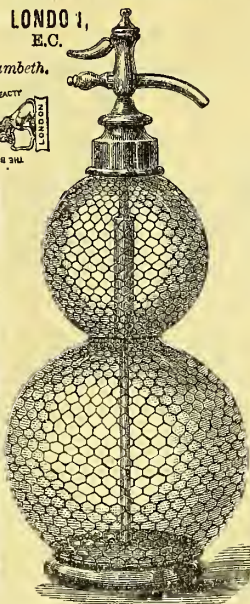
REGISTERED PROPRIETORS, MANUFACTURING CO.

2 GRESHAM BUILDINGS, LONDON E.C.

Works:
Wickham St., Lambeth.

Specimen of Trade Mark engraved on the Syphon Bottles by the acid process at 1/12 and 3/4 per bottle extra, and 2/6 per dozen extra. Name stamped on the metal top free for order of one gross.

IMPORTANT.—In ordering our Seltzoogenes through Agents, distinctly state that you require the "Lion and Shield" brand, and see that you get it, as often other inferior styles are stamped thus—
GUARANTEED PERFECT, and of first-class workmanship.



SYPHONS.

Short Lever... .. 22/6 per doz. net.
Long... .. 24/0
White, Blue, Amber, or Green Bottles.
Octagonal-shaped Bottles, 1/6 per dozen extra.
Silver-plated tops, 9/- per doz. extra.

Special Quotation for Large Quantities. Each Seltzoogene and Syphon thoroughly tested before sent out. All metal warranted free from lead.

SELTZOGENES

3 pint wire covered, 13/-; cane covd. 13/6
" " " 18/-; " 19/-
" " " 30/-
Silver-plated Wire or Top, 5/- extra.
Drop Caps, Measures, Fittings for Repairs, &c. Liberal discount.

By Special Appointment to
H.R.H. the Duke of Connaught and the Royal Family.



BOURNE WATERS.

THE PUREST IN ENGLAND.

R. M. MILLS & CO.,

BOURNE, LINCOLNSHIRE,

MANUFACTURERS OF

SODA, POTASH, LITHIA, AND SELTZER WATERS,
LEMONADE, AND AROMATIC GINGER ALE.

4-dozen and 6-dozen Cases Carriage Paid.

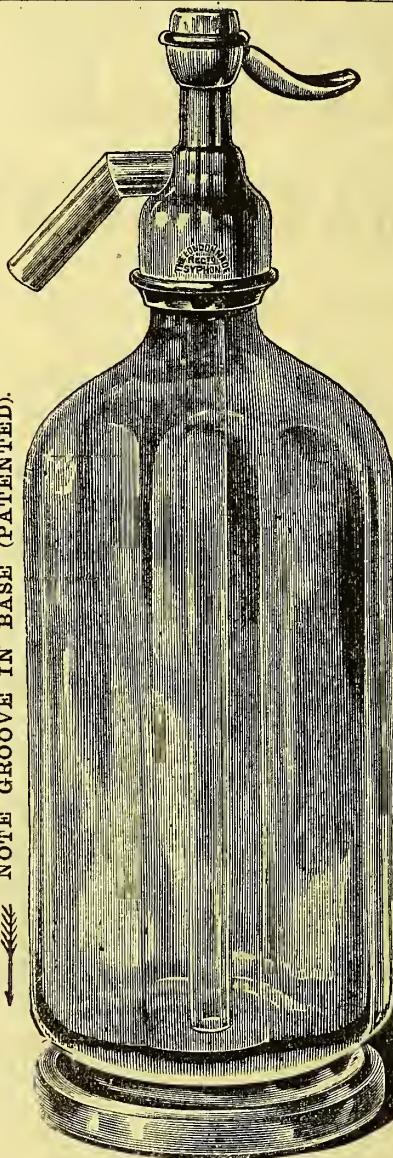
Prices and Pamphlet on application. Agents appointed.

For particulars as to the January
Issue, 1885, of "The Chemist and
Druggist," see page 7.

BARNETT & FOSTER,

"Niagara Works," 26th Eagle Wharf Rd., London, N.

Having completed extensive alterations and additions in our premises and plant, we are now enabled to execute orders of any magnitude for our celebrated "LONDON MADE" SYPHON BOTTLE (which has earned such high reputation for being the simplest, safest, and most elegant syphon in the market) with punctuality and dispatch, at the same time guaranteeing the best workmanship and materials. Special attention is called to the patent "Octagonal" vase, which adds greatly to the appearance of the syphon without very greatly increasing the cost, and which is fitted at the base with groove so that drips from the spout run down the sides and are prevented from soiling the table.



PRICES (White, Blue, Green, or Amber) :—

	By the gross, per doz.	Less than 1 gross, per doz.
Quart size	£1 2 0	£1 4 0
Pint size	1 1 0	1 3 0
Half-pint, Pear shape	1 0 0	1 2 0
Octagonal vases, any colour	1 4 0	1 6 0

Top, nickel-plated, from 5s. 6d. per doz. extra. Tops silver-plated and burnished, from 9s. per doz. extra. Special Prices and Terms to large Buyers.

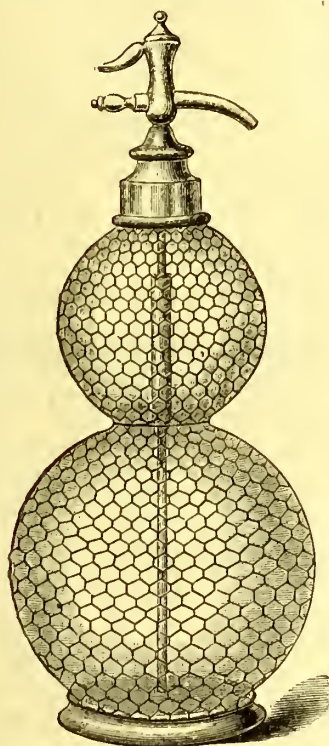
NOTE.—Syphons made with our patent foot for collecting excess of liquid dripping from the spout after use are supplied at no extra charge, and will be found of great utility in preventing stains, &c., upon table linen. This is a desideratum long been wanting, particularly for private house use. Sent for sample; forwarded upon receipt of 2s.

3 GOLD, 2 SILVER, and 2 BRONZE MEDALS,
INTERNATIONAL HEALTH EXHIBITION LONDON, 1884.

THE
IDRIS
SELTZOGENE.

Unequalled in Style and Finish.

CANE OR WIRE COVERED.



For Price List and Terms,

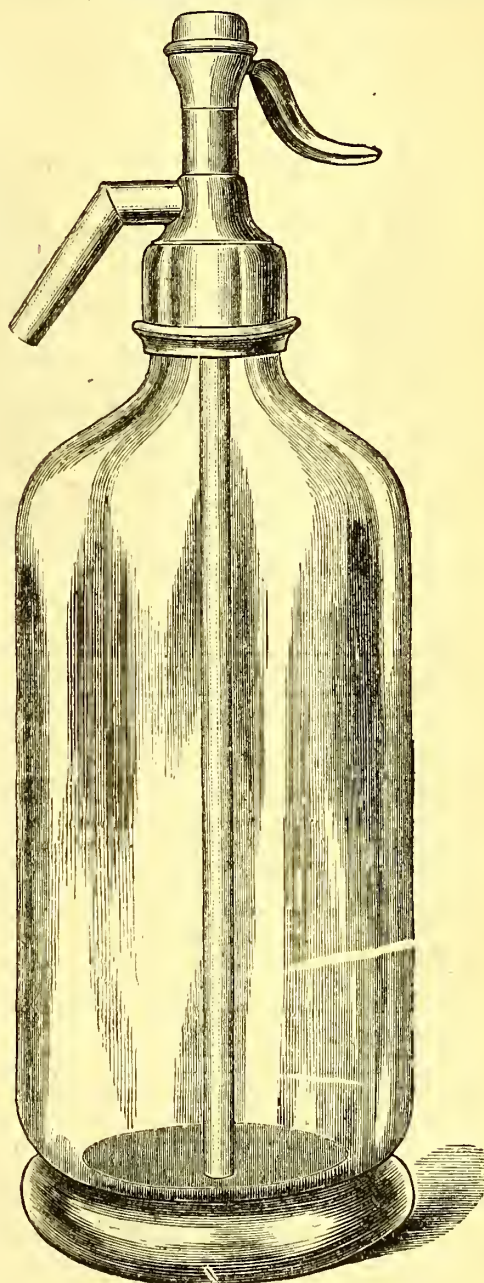
APPLY TO THE

IDRIS
MANUFACTURING COMPANY,

ASCHAM STREET,
LONDON, N.W.

THE
IDRIS SYPHON

*Is the best in the Market, combining the elegance
of the French with the strength and superiority
of English workmanship.*



Intending purchasers should apply
for samples and prices, before placing
their orders, to the

IDRIS MANUFACTURING CO.,
Ascham Street, London, N.W.

Tops guaranteed to be made of Best English Tin and
free from Lead.

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ENGINEERS, PATENTEES IN FRANCE AND ABROAD OF
IMPROVED MACHINERY FOR THE MANUFACTURE OF SODA-WATER.

GOLD MEDAL, AMSTERDAM, 1883.

APPARATUS GAZOSELTZ CONTINUAL,

Without Gasometer, with automatic distribution of the acid. The only ones which work under a regular pressure as long as the operation lasts.



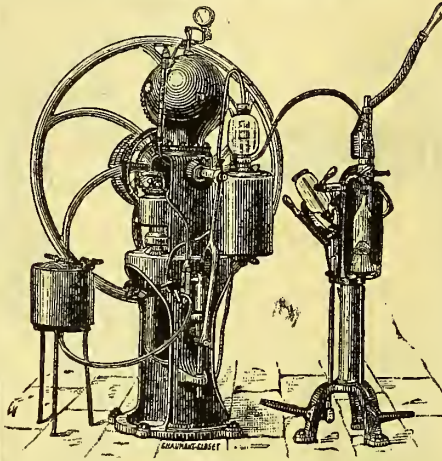
Syphons,
Short lever.

PRICE—

20/6 per dozen.

All the fittings manufactured by ourselves, and of the best workmanship.

PURE ENGLISH TIN. FIRST QUALITY.



Complete Plant, Model No. 1,

Showing the Generator with Combination filler (for bottles and syphons), Price £48. Production 1,200 syphons or bottles daily
PROSPECTUS FREE ON APPLICATION.

New system, based on the principle of Mariotte's bottle.

Automatic and continuous production of the gas, permitting the indefinite preservation of the gas purifiers.

No gasometer required.

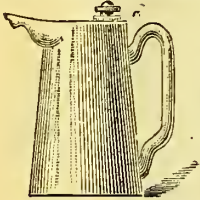
No manipulation of the acid tap required.

Safety. All risk of explosions avoided.

L'HOTE'S APPARATUS

(Patented S.G.D.G.)

FOR SELTZER WATER & AERATED BEVERAGES.



1/7th of actual size.

This Apparatus is made entirely in PORCELAIN. No Repairs necessary. No Explosions possible. The cheapest of Table Apparatus.

PRICES:—

Two-Bottle Apparatus .. 5fr. 75c. (4/7)

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Powders for the Two-bottle Apparatus (Ten charges) 1fr. 20c (1/)

Powders for the Three-bottle Apparatus (Ten charges) 1fr. 80c (1/6)

Discount to Pharmacists and Druggists.

F. PAQUET, Manufacturer,
1 Cite Trevisé, PARIS.

FOUND AT LAST! WHAT?

A Temperance Beverage brewed entirely from Malt and Hops and absolutely free from Alcohol.

In proof of this, see Dr. O. BOSTOCK HILL'S (County Analyst, &c.) report upon each label.

SALUS

Has a pleasant flavour. Is a good appetizer, the best Hops only being used. Is refreshing and stimulating, without the injurious effects of Alcohol.

Sample orders of 6 doz. Champagne Pints sent, carriage paid to any Railway Station in England, on receipt of 28s.; 10s. allowed for case and bottles when returned to the

SALUS MANUFACTURING COMPANY,
Gladstone Road, Birmingham.

FOREIGN

MINERAL WATERS.

FREDERICKSHALL (5 Cases, 6d. per Case less), 24/ Case, 30 bot.; 39/ Case, 60 1/2 bot.

APOLLINARIS WATER, 25/- Hpr., 50 bts., 39/- Hpr., 100 1/2 bts.

"Carriage paid." Hampers free. 5 per cent. discount if 20 Hampers.

HUNYADI JANOS (10 Cases, 3/- and 5/- less), 30/- Case, 25 bts.; 50/- Case, 50 1/2 bts.

ELTZER ... 11/- Hpr., 25 bts.

FULLNA ... 15/- Hpr., 50 1/2 bts.

VICHY ... 18/- Case, 20 bts.

CARLSBAD ... 30/- Case, 50 1/2 bts.

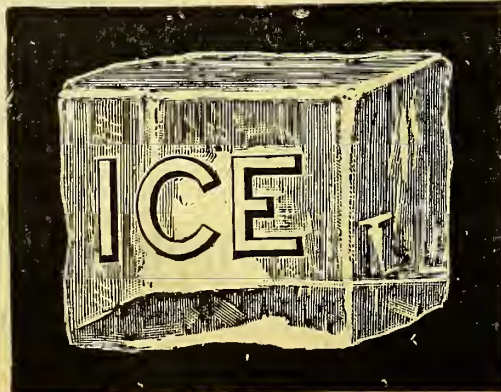
KISSENGEN ... 21/- " 50 bts.

SCHWALLBACH ... 27/- " 50 1/2 bts.

HOMBURG ... 37/- " 50 bts.

WILDUNGEN ... 42/6 " 50 "

CARLSBAD ALTS, 1/2-Bots., 20/- per doz.; 1-Bots., 40/- per doz.; Bot., 80/- per doz.



REGISTERED AT STATIONERS' HALL.

NORWAY BLOCK ICE

FROM FINEST LAKES IN CHRISTIANIA.

Professor Frankland's report with analysis:— "The ice is exceedingly pure, and contains less foreign matter than any water with which I am acquainted in this country."

Original Blocks
(2 to 3 cwt. each) 2s. 0d. per cwt.
1 cwt. to 2 cwt. .. 2s. 6d. per cwt.
1/2 cwt. to 1 cwt. ... 3d. per lb.
Under 1 cwt. 1d. per lb.

Packing free. Utmost promptitude in despatch.

W. B. HARRISON

Importer of Ice and Mineral Waters,

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CAUTION.

OFFICE—
398 Rue St. Honoré, Paris.

WORKS—
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WEIGHT OF THE CASES :

Cases containing

6 8 pints about 90 kilos.

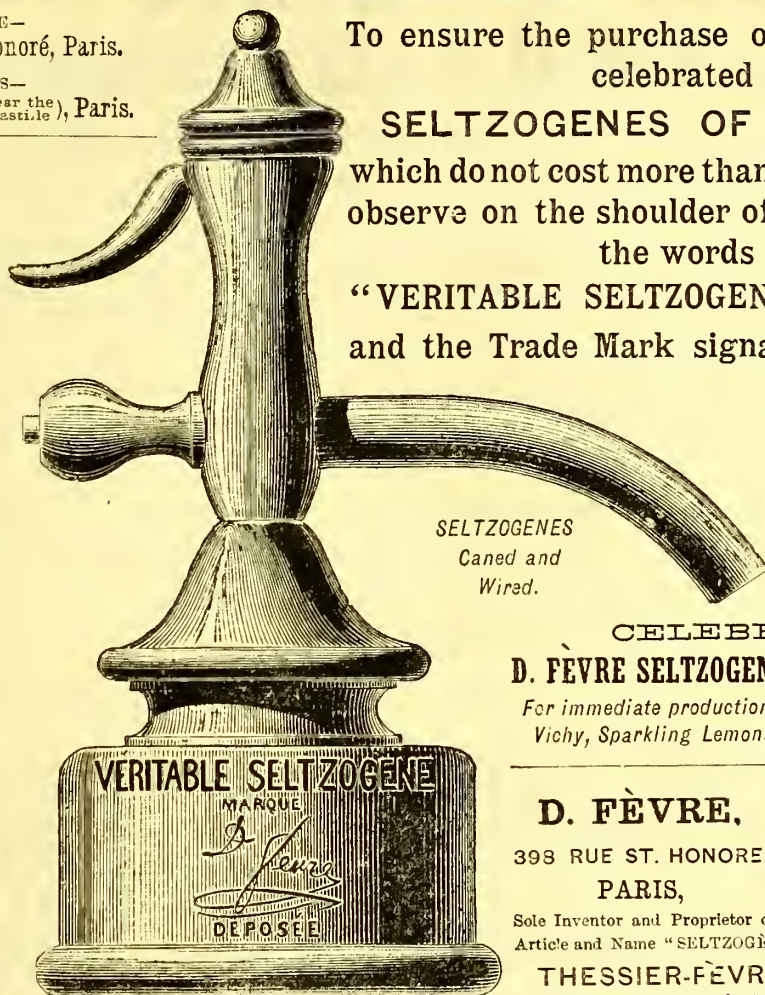
12 5 " " 90 "

12 3 " " 60 "

MELEOURNE
EXHIBITION.

FIRST ORDER OF
MERIT

awarded to
THESSIER-FÈVRE.



SELTZOGENES
Cane and
Wired.

To ensure the purchase of the genuine
celebrated
SELTZOGENES OF D. FÈVRE,
which do not cost more than the imitations,
observe on the shoulder of the apparatus
the words
"VERITABLE SELTZOGÈNE D. FÈVRE,"
and the Trade Mark signature

ALL MY GOODS ARE
TESTED.

CELEBRATED
D. FÈVRE SELTZOGENES AND POWDERS,
For immediate production of Soda Water, Eau de
Vichy, Sparkling Lemonade, & Aerated Wines.

D. FÈVRE,

398 RUE ST. HONORE,
PARIS,

Sole Inventor and Proprietor of the
Article and Name "SELTZOGENÈ,"

THESSIER-FÈVRE,
Son-in-Law, Manufacturer.

WHOLESALE PRICES.

Celebrated D. Fèvre Seltzogene.	3 pint, wire covered	12s. 0d. each.
	3 pint, cane covered	12s. 6d. "
	5 pint, wire covered	18s. 0d. "
	5 pint, cane covered	19s. 0d. "
	8 pint, wire covered	30s. 0d. "

Liberal discount allowed.

Case and Packing	12 Seltzogenes, 3 pint size	4s. 0d. nct.
" "	12 " 5 "	5s. 8d. "
" "	6 " 8 "	4s. 6d. "

CELEBRATED D. FÈVRE POWDERS

FOR THE SELTZOGENES.

Pure Tartaric Acid and Bicarbonate of Soda in the highest
state of perfection.

3 pint, per dozen boxes of 12 charges, 21s.
5 " " " " 36s.
8 " " " " 60s.
3 pint, per dozen boxes of 10 charges, 20s. 6d.
5 " " " " 30s. 6d.
8 " " " " 45s. 2d.

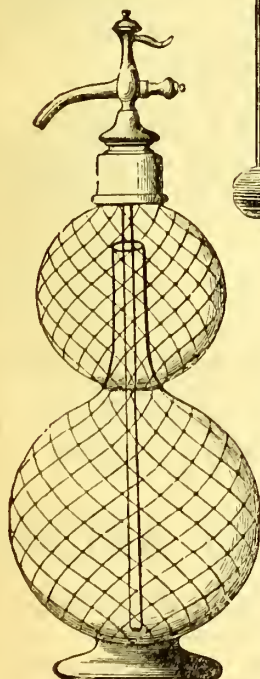
Liberal discount allowed.

EXTRA:—Taps, Tubes, Valves,
Washers, &c.

DIRECTION FOR REPAIRS.

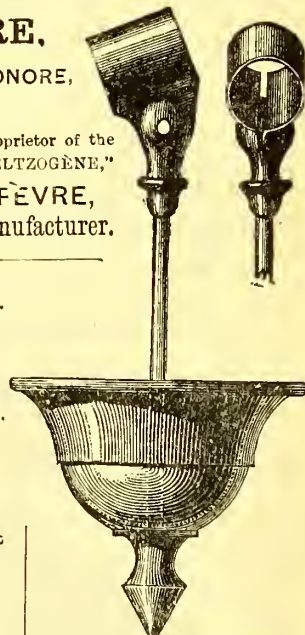
DRIP CATCHERS, FITTINGS, MEASURES, &c.

ILLUSTRATED CATALOGUE FORWARDED FREE.



TRADE MARK.

REGISTERED.



DRIP CATCHERS
for
D. FÈVRE SELTZOGENES,
8s. 6d. per dozen.

Registered April 1, 1879,
No. 333,951.

THESSIER-FÈVRE,
SOLE MANUFACTURER.

THE CHEMISTS' AERATED & MINERAL WATERS ASSOCIATION, LTD.,

The ONLY Company that supplies exclusively to Hospitals and Chemists Manufactured Mineral Waters of the highest class and of specified formula.

THE ONLY PRIZE MEDAL



LONDON BRISTOL HARROGATE

45 Gifford St.,
Caledonian Rd., N.

Sun Factory,
Victoria Road.

Montpellier Works,
Starbeck.

HIGHEST PRIZE MEDAL



TO THE SHAREHOLDERS.

GENTLEMEN,—

I beg to inform you that the dividend of 6 per cent. declared at last General Meeting, payable January 1, 1885, will be placed to the credit of open accounts unless applied for on or before December 24th instant.

Yours faithfully,

H. T. BUTLER,

SECRETARY.

W. A. ROSS & CO., BELFAST.

MANUFACTURERS OF THE

ROYAL BELFAST GINGER ALE

AERATED WATERS & CORDIALS,

Latest Honours 2 GOLD MEDALS and 1 SILVER MEDAL at CALCUTTA, 1883-4.

PURVEYORS BY SPECIAL APPOINTMENT TO HIS EXCELLENCY THE VICEROY OF INDIA.

Each Bottle is protected by a Label bearing the signature of the Firm and the r Trade Mark.

NEW AND IMPORTANT DISCOVERY.

GINGER ALE

FROM PURE JAMAICA GINGER.

THE ROYAL YORKSHIRE GINGER ALE, from Pure Jamaica Ginger. Is Non-Intoxicating.



ABSOLUTELY PURE.—See Analysis by Drs. J. H. HASSALL, M.D., and Otto HEENER, F.C.S.

The difficulty of using Ginger in the Manufacture of "Ginger Ale," and at the same time having a CLEAR and SPARKLING DRINK, has, after much labour and expense, been thoroughly overcome by

Messrs. HARSTON & CO., of LEEDS.

"ABSOLUTELY PURE." SEE ANALYSIS, sent post free on application.



REGISTERED.

ELLIS'S RUTHIN WATERS.

ESTABLISHED 1825.

"CRYSTAL SPRINGS." Renowned for their purity for HALF-A-CENTURY. Situated on the premises, and exclusively the private property of the Firm.

Soda, Potass, Seltzer, Lemonade, Aromatic Ginger Ale. For Gout; Lithia Water, and Lithia and Potass Water. Corks branded—"R. ELLIS & SON, RUTHIN," and every Label is registered, and bears their Name and Trade Mark.

R. ELLIS & SON, Ruthin, NORTH WALES,
Manufacturers to the Royal Family.

London Agents: W. BEST & SONS, Henrietta St., Cavendish Square.

T. & F. J. TAYLOR'S



AERATED WATERS, Newport Pagnel.

ESTABLISHED 1835.

SODA, POTASH, SELTZER, AERATED (without Alkali), and **LITHIA WATERS, LEMONADE AND GINGER ALE.**

Each Bottle is protected by a Label bearing the Signature of the Firm.

Purity and Excellence of the Water certified by Analysis by Professor ATTFIELD, Ph.D., F.C.S.

JEWSBURY & BROWN'S MANCHESTER MINERAL WATERS,

**PURE SODA, SELTZER, POTASH, LITHIA, &c.,
LEMONADE,
GINGER ALE, AND QUININE TONIC.**

Prepared and Bottled specially for Export, and warranted to keep well.

Manufactured with the utmost care and by improved machinery, these productions are recommended for purity and excellence of quality by many leading members of the Medical Profession, and have for many years had a preference by the public; the flavour of the Lemonade and Ginger Ale being procured from the fresh Fruit and Finest Jamaica Ginger, they may be relied upon as furnishing delicious and satisfactory beverages, either for general use or specially for invalids.

The Soda Water is absolutely free from any metallic impregnation, and being by improved machinery highly charged with Carbonic Acid Gas, and each bottle containing a definite and unvarying proportion of Pure Carbonate of Soda, J. & B. have every confidence in inviting a trial from those who have not already patronised them.

The Seltzer, Potash, and Lithia Waters are prepared with the utmost exactitude and the purest ingredients.

The New Quinine Tonic furnishes a pleasant form for the administration of a most valuable restorative, and is refreshing and agreeable.

Ginger Ale (Aromatic) of superior quality, and strongly recommended as a Non-Alcoholic and warm stimulant beverage.

N.B.—Every Bottle is protected by a distinctive Label, with Name and Trade Mark, and each Cork is branded.

Counter Bills and Analytical Reports, with Agents' Names and Addresses, supplied when requested.

JEWSBURY & BROWN, 44 Downing Street, 3 Grosvenor Street, and 113 Market Street, MANCHESTER.

PURVEYORS BY SPECIAL APPOINTMENT
TO HER MAJESTY THE QUEEN.

MUMBY'S MINERAL WATERS

Are Perfectly Pure and of First-class Quality.

**SODA WATER, POTASS WATER,
SELTZER WATER, TONIC WATER,
GINGER ALE, LEMONADE, &c.**

IMPORTANT TESTIMONIAL.

H.M.S. "SERAPIS," Portsmouth, 25th May, 1876.

Messrs. C. MUMBY & Co.,
Gentlemen,—The Soda Water supplied by you for the use of H.R.H. THE PRINCE OF WALES on board H.M.S. "Serapis" was of excellent quality, kept in good condition, and gave great satisfaction to His Royal Highness, his suite, and the officers of the ship.

(Signed) THOMAS BRADBRIDGE, Paymaster.
T. W. SCADDAN, Chief Steward.

These Celebrated Waters can be supplied in
Syphons with Silver-plated Tops.

GOODS CARRIAGE PAID. PRICES ON APPLICATION.

34 THE HARD, PORTSMOUTH.

London Agents :—Walker & Moore, 17 Redcross St.

CANTRELL & COCHRANE'S

CELEBRATED

**AROMATIC GINGER ALE,
SPARKLING MONTSERRAT,
"CLUB SODA," AND
MINERAL WATERS,**

As supplied to Her Majesty's Imperial Houses
of Parliament,

Have been Awarded TWENTY-THREE GOLD AND
PRIZE MEDALS at the various International
Exhibitions.

Goods for Export are specially prepared, and are guaranteed
to keep in any climate.

PRICES AND TERMS ON APPLICATION TO—

**CANTRELL & COCHRANE,
BELFAST AND DUBLIN.**

A CERTIFICATE OF MERIT awarded by the British
Sanitary Institute of Great Britain, after a deferred
PRACTICAL TRIAL AND EXAMINATION, July 4th,
1879.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS,

FOR THE PRODUCTION OF
THE FINEST LEMONADE.

Added in the proportion of one fluid ounce to each gallon of syrup, the soluble essence imparts the most delicious flavour of the Lemon.
—*The Chemist's Journal.*



The Essence mixes well with water, and has a delicate flavour. The Lemonade made therewith has a far more delicate flavour than that generally met with.—*The Chemist and Druggist.*

Trade Price, 8/6 per lb.; 12 lbs. and upwards, 8/.

PREPARED BY

**W. HAY, Manufacturing Chemist,
BEVERLEY ROAD, HULL.**

HAY'S GINGER CHAMPAGNE

CAN BE OBTAINED FROM THE SOLE AGENTS,

INGRAM & ROYLE,

119 QUEEN VICTORIA STREET, LONDON, E.C.,
AND BATH BRIDGE, BRISTOL.

Retail Price, in Half Champagne Bottles, 5/6 per doz.

This SPARKLING, EXHILARATING, and REFRESHING DRINK, while being far more agreeable in bouquet and flavour than the FINEST CHAMPAGNE WINE, is, at the same time, unlike it, FREE from ALCOHOL.

It is strongly recommended both for Juveniles and Adults, &c., as the most Wholesome Stimulating Beverage that has hitherto been introduced, and should be in every household during all seasons of the year.

Samaritan Free Hospital, Lower Seymour Street,
Portman Square, London, W.

Dear Sir,—I have tried your Ginger Champagne, which I find to be excellent, and I look upon it as a step in the right direction towards meeting a long-felt want. Our Senior Physician, Dr. Henry Savage, has also tried it, and is much pleased with it. We ought long ago to have had such a beverage, and I believe that a great deal of drinking would thus have been prevented. I wish your effort much success.

I am, dear Sir, yours faithfully,
GEORGE SCUDAMORE, Secretary.

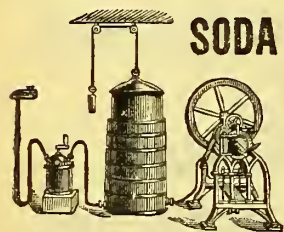
An excellent and most agreeable beverage.—*The Lancet.*

Made by Mr. Hay, of Hull, with his well-known SOLUBLE ESSENCE OF JAMAICA GINGER, takes rank as a PURE, WHOLESOME, STIMULATING, and NON-ALCOHOLIC beverage.—*British Medical Journal.*

One of the most delicate and wholesome drinks in the market.—*Medical Press.*

SOLE MANUFACTURER—

W. HAY, Chemist, &c., 4 Regent's Terrace. HULL.



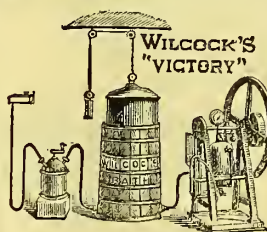
SODA WATER MACHINE.

EASY TERMS.

CATALOGUE FREE.

WRITE TO

**N. G. WILCOCKS,
BACK STREET, BATH.**



MANUFACTORY:
**BATH CITY BRASS FOUNDRY
AND IRONWORKS,
BECK STREET.
N. G. WILCOCKS,
BATH, SOMERSET,
ENGLAND.**



VANES'S

PATENT

STOPPERS FOR MINERAL WATERS

Bottles fitted with these stoppers are easily and quickly opened by simply pulling the stopper on one side with the finger, (as shown in the illustration), thereby causing the pressure-gas to escape, and the stopper immediately to fall. The shape of the stoppers, to which this great advantage is due, gives them also a neat and elegant appearance in a filled bottle unsurpassed by glass or any other stopper.

PRICES:

Stoppers and Rubbers, complete	...	...	...	...	...	6/6 per Gross.
Stoppers without Rubbers	...	...	...	...	...	4/ "
Fitted Bottles, full size	...	...	...	...	...	22/ "
" splits	...	...	...	...	...	20/6 "

The only Rubbers used are the 19B SILVERTOWN, and these are the best obtainable.

Sample Stoppers gratis and post free. A fitted sample bottle sent post free on receipt of 12 stamps.
Sample Half-gross, full-sized Bottles, fitted with Stoppers complete, on receipt of 13s., including package but not carriage.

ANNUAL ROYALTY—ONE GUINEA.

A. B. VANES, 111 PARK ROAD, ASTON, BIRMINGHAM.

HONOURABLE MENTION,
International Food Exhibition, Agricultural Hall, London, October, 1880.

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER

(Guaranteed Pure and Free from Capsicum).

Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d.

Highly adapted for the manufacture of *Transparent Aerated Waters*, and for all *Dietetic, Medicinal, and Pharmaceutical* purposes
MEDICAL AND OTHER OPINIONS ON HAY'S GINGER CHAMPAGNE.

Made from Hay's Ginger Champagne Essence.

"The FINE AROMA OF GINGER which Mr. Hay has caught with remarkable success is an excellent SUBSTITUTE FOR ALCOHOL, as it gives what old port wine-drinkers used to call 'BODY,' and to many people, besides professed teetotalers, an occasional change at least from the ROYAL FRENCH BEVERAGE to its less costly, but equally sparkling and MORE REFRESHING ENGLISH RIVAL, is a welcome treat,"

The Chemist and Druggist.

"An excellent and most agreeable beverage."

The Lancet.

"Made by Mr. HAY, of Hull, with his well-known Soluble Essence of Jamaica Ginger, takes rank as a pure, wholesome, stimulating, and non-alcoholic beverage."—*British Medical Journal.*



Medical and other Opinions on the
Ginger Beer made from HAY'S Soluble Essence.

"An excellent effervescent drink."—*The Lancet.*

"Preferable to some wines we have tasted under the name of champagne."—*Medical Press.*

"Has the purest Jamaica Ginger aroma, and ought to attain great popularity."—*The Chemist and Druggist.*

The aroma is fine, the flavour delicate, and the pungency admirable, and we should be glad to see the Essence introduced into this country.

Carbonated Drinks. New York, U.S.A.

HAY'S Ginger Ale.

"It pours out with as fine a 'head' as any glass of ale, and possesses all the fine aromatic flavour of the pure ginger. It is a beverage which is sure to win favour wherever introduced."—*The Chemist and Druggist.*

THE COMPOUND FORTIFIED ESSENCE

Specially adapted for the Manufacture of the

FINEST GINGER ALE.

This Essence, which is an addition of Vanilla, Lemon, and other flavours to the above, is strongly recommended for the manufacture of the finest Ginger Beer and Ginger Ale. It imparts, with the exquisite Ginger Aroma of the above-mentioned Essence, a peculiarly fine fruity flavour combined with the fullest amount of fragrance and pungency.

Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards, 5s.

HAY'S GINGER CHAMPAGNE ESSENCE

FOR THE MANUFACTURE OF GINGER CHAMPAGNE.

This Essence is a combination of the Finest Flavours, and imparts with the Ginger, a most exquisite Aroma.

Trade Price, 8s. per lb.; 12 lbs. and upwards, 7s. 6d.

HAY'S GINGER ALE ESSENCE,

HIGHLY CONCENTRATED.

This Essence is a complete Bouquet of the Finest Ginger, Lemon, and other flavours in a highly concentrated state. Ginger Beer and Ginger Ale made with this Essence will possess an amount of Aroma, Flavour, and Quality that have hitherto been without precedent, and that will be sure to command a large sale.

THE COST IN MANUFACTURE IS ABOUT ONE FARTHING PER DOZEN BOTTLES.

Trade Price, 9s. per lb.; 12 lbs. and upwards, 8s. 6d.

HAY'S GINGER ALE EXTRACT

SUPPLIES PUNGENCY, AROMA, COLOURING, AND FLAVOURING.

This Extract is strongly recommended for the manufacture of Ginger Ale, to which it imparts an unusually Fine Flavour and Great Brilliancy, at a cost of a little under 1d. per dozen bottles.

Trade Price, 4s. 6d. per lb.; 12 lbs. and upwards, 4s.

PREPARED BY

W. HAY, Manufacturing Chemist, BEVERLEY ROAD, HULL.

Agents—Messrs. HEARON, SQUIRE & FRANCIS, Wholesale Druggists,
5 COLEMAN STREET, LONDON, E.C.

W. HAY CAUTIONS THE TRADE against the use of those spurious so-called SOLUBLE ESSENCES which, besides having NO GINGER AROMA, are FLAVOURLESS, RANK, and DISAGREEABLE, and are little more than TINCTURES OF CAPSICUM.

Hunyadi János

CAUTION.—Circumstances which have come to the knowledge of Andreas Saxlehner, Buda Pest, Sole Proprietor of the Hunyadi János Spring, compel him to WARN the British Public against SPURIOUS IMITATIONS. To secure genuineness, purchasers should see that every bottle has on the LABEL the name of "THE APOLLINARIS COMPANY (LIMITED), London."

ANNUAL SUBSCRIPTION, POST FREE, 6s. SAMPLE COPY, 8d.

THE MINERAL WATER TRADE REVIEW.

ESTABLISHED 1873.

The Pioneer Journal and Representative Organ of the Mineral and Aerated Water Trades.

PUBLISHED ON THE 18TH OF EACH MONTH.

J. GILBERT SMITH, 143 Queen Victoria St., LONDON.

LA BOURBOULE,

AN EMINENTLY RESTORATIVE MINERAL WATER.

Contains Chloride of Soda, Bicarbonates, Arsenics (28 millig. of arseniate of soda per litre).

Dose: Half a glass to three glasses per day before or during meals.

A Regenerator for Weakly Children, and for Debility in Adults; also in Anæmia, Fatty Degeneration, Affections of the Skin and Respiratory Organs, and Intermittent Fevers. Employed as a drink and in gargles for Bronchitis and Sore Throat, and as a drink and lotion in Kingworm, Chaps, and Redness of the Skin.

Anglican Divine service on Sundays.

London: GALLAIS & CO., 27 Margaret Street, W. INGRAM & ROYLE, 119 Queen Victoria Street, E.C. WILLIAM BETTS & SONS, 22 Henrietta Street, Cavendish Square. Liverpool: EVANS, SONS & CO.

GEORGE OATES & CO., MESSINA, SICILY

MANUFACTURERS OF

ESSENTIAL OILS.

PRIZE MEDAL MELBOURNE, 1880

References: MESSRS. BARING BROS. & CO., LONDON.

FRATELLI DE PASQUALE & CO.,

LARGO MUNIZIONE, MESSINA, SICILY,

MANUFACTURERS, ESTABLISHED ON THE VERY GROWTH PLACE, FOR THE FINEST

ESSENTIAL OILS

Of Lemon, Bergamot, Sweet and Bitter Orange. Recently Awarded at the Exhibitions of

CALTANISSETTA, 1879—A Gold Medal and 200 Liras for Invention of Machinery to the use of their Manufactory, and Silver Medal for Excellence of Produce.

MILAN, 1881—A Bronze Medal for Excellence of Produce.

MELBOURNE, 1881—A First Order of Merit for Excellence of Produce.

MESSINA, 1882—A Gold Medal and 150 Liras for an ample set of Machines to the use of their Manufactory, and a Bronze Medal for Excellence of Produce.

A first trial order is quite sufficient to remain convinced of the Excellence of our Essences.

Samples and all particulars may be had from our Wholesale Agents—

SAM'L LAMBERT & CO., DRUG BROKERS, 132 Fenchurch St., LONDON.

CLAUDE RAYNAUD & CO.,

MANUFACTURERS AND DISTILLERS OF

POMADE, EXTRACTS, OIL, ROSE AND ORANGE FLOWER WATER, ETC.

MESSRS. CLAUDE RAYNAUD & CO. (Grasse) beg to inform purchasers of the following prices for their new Rose Water and Orange Flower Water:—

ROSE WATER.

Carboys of 24 litres, triple	...	...	32 fcs or £1 5 7
" 24 " quadruple	...	...	36 " 1 8 9
Coppers of 24 " triple	...	...	35 " 1 8 0
" 24 " quadruple	...	...	39 " 1 11 2

ORANGE FLOWER WATER.

Carboys of 24 litres, triple	...	...	34 fcs. or £1 7 2
" 24 " quadruple	...	...	38 " 1 10 5
Coppers of 24 " triple	...	...	37 " 1 9 8
" 24 " quadruple	...	...	44 " 1 12 9

Also special extra quality Extracts in 2½ oz. bottles, for export and home consumption, in 6 dozen cases, assorted—20/ per doz. in bond; 23/ per doz. duty paid. New Pomades and Essential Oils now ready.

OIL LAVENDER.—MONT BLANC is now in perfection, and Messrs. C. R. & Co. solicit a trial of this which they highly recommend.

Sole Agent—G. V. DE LUCA, 6 & 7 Long Lane, E.C.

Depot—NEWBERY & SONS, 1 King Edward St., E.C.

W. J. BUSH & CO.,

Distillers and Importers of

ESSENTIAL OILS AND FRUIT ESSENCES,

SOLUBLE ESSENCES FOR AERATED WATER

AND CORDIAL MANUFACTURERS,

Extra Super Lemon, which is double the strength of ordinary commercial qualities.

W. J. B & CO. caution the Trade against the so-called soluble Essences now so frequently offered for sale, which are nothing more than mere tinctures, and, although offered at lower prices, cost five or six times as much in use, whilst imparting a strong medicated flavour.

The importance of our invention of Soluble Essences is clearly shown by the numerous imitators and copyers that have sprung up, and we must inform the TRADE that ours are the only GENUINE ORIGINAL SOLUBLE ESSENCES.

FRENCH CREAM GUM EXTRACT,

PROTECTED BY ROYAL LETTERS PATENT,

For producing a head of Creamy Richness upon all kinds of Syrups, Aerated Waters, Beers, Ales, Cider, Champagne, &c., 2s. 6d. per pound.

W. J. BUSH & CO. regret having to Caution the Trade against spurious imitations of this article, most of which being mere rubbish.

W. J. BUSH & CO.'S ENGLISH DRAWN ESSENTIAL OILS.

OL. AMYGD. ESSENT. ANG.

„ AMYGD. „ (SINE
ACID. PRUSSIC.)

„ ANETHI ANG.

„ CARUI ANG.

„ CARYOPH. ANG.

„ CINNAM. VER. ANG.

OL. CUBEBÆ ANG.

„ COPAIBÆ ANG.

„ MYRISTICÆ ANG.

„ MENTH. PIP. MITCHAM
RECT.

„ SANTAL FLAV. ANG.

OL. LIMONIS (W. J. B. & CO.'S SPECIALITY).

20-23 ARTILLERY LANE, BISHOPSGATE, LONDON, E.



DR. KOCHS' MEAT PEPTONES.

A New really Nutritious and Agreeable Food for Invalids, as well as for all persons in good health.

A solution of the long-sought scientific problem. The nutritious constituents of fresh meat peptonised and retaining the albumen, forming a product of the highest alimentary order, not liable to decompose, agreeable to the taste, invigorating, and instantly assimilable, without requiring the process of digestion. Used with the best results in the Hospitals of London, Paris, Berlin, Vienna, &c. Specially recommended for convalescents, and for sufferers from dyspepsia, poverty of blood, and general faintness, &c. For further details, see THE LANCET of September 6th, 1884.

Sole Consignees—WIDENMANN, BROICHER & CO., 33 Lime St., London, E.C.

ORANGE-QUININE TONIC-WINE.

As originally introduced by us, containing 1 grain of quinine to the ounce.

To meet the requirements of the trade, we have reduced the prices as below. The size of the bottles and the quality are as hitherto supplied:—

In bottles 6 to gallon, to retail at 2s. each, at 19s. per doz. In small bottles, to retail at 1s each, at 9s. per doz.

Less 5 per cent. discount. Carriage paid to any part of England on quantities of 3 dozen large or 6 dozen small bottles.

HIRST, BROOKE & HIRST, LEEDS.

ORANGE WINE.

Most suitable for making Quinine Wine because of its containing the least percentage of tannic acid possible, and being in the most brilliant condition. In casks of not less 8 gallons, 4s. per gallon, carriage paid. Extra superior quality (finest made), 4s. 6d. per gallon, carriage paid.

SAMPLES FREE AND CARRIAGE PAID UPON APPLICATION TO

LAMB & WATT, 46 and 48 ST. ANNE STREET, LIVERPOOL.

ROBINSON'S ORANGE WINE

(VIN. AURANTII, B.P.)

Specially prepared for Quinine Wine, does not deposit, will keep good in any climate, and well adapted for Export Trade. Supplied in Casks containing 9, 18, 30, 60, or 120 Gallons. Terms on application.

THE UNIVERSAL CORN AND WART PENCIL.

1 doz. mounted on a handsome Illustrated Show-Card, Retail, 6d. each; Wholesale, 3s. 6d. per doz. It is especially adapted for Export Trade, and may be safely sent to the hottest climates, as each glass tube is hermetically sealed and enclosed in a cardboard case. N.B.—The above is exempt from Stamp Duty by permission of the Board of Inland Revenue.

CONCENTRATED WATERS.—One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopoeia, and free from all Chemical impurity. They are prepared to supply a want long felt by Chemists and Medical Men, and by their use a fresh supply of any of the Medicinal Waters may be obtained at a moment's notice. They are not affected by age in any climate. N.B.—Used in the proportion of one part to thirty-two of water they represent the Medicinal Waters of the United States Pharmacopoeia.



	Per lb.		Per lb.		Per lb.		Per lb.
Aqua Anethi, Concent.	4/0	Aqua Cinnam. Ver. Concent.	6/0	Aqua Feniculi, Concent.	4/0	Aqua Pimentae, Concent.	4/0
" Anisi "	4/0	" Cassia "	4/0	" Menth. Pip. "	4/0	" Rose "	8/6
" Camphorae "	4/0	" Flor. Aurant. "	8/6	" Ang. Con. "	6/0	" Rose Virgin "	10/6
" Carni "	4/0	" Flor. Sambuci "	8/6	" Virid. "	4/0		

The above are put up in Bottles of 1lb. or 1lb. and upwards, each of which has the Inventor's Protection Label over cork.

Wholesale Agents—Hearon & Co., Maw, Son, & Thompson, Lynch & Co., London; Evans, Sons & Co., Liverpool; Woolley, Manchester; Bewley & Draper, Hunt & Co., Dublin; Glasgow Apothecaries' Co., Hatrick & Co., Glasgow; Ralms & Co., Duncan Flockhart & Co., J. Mackay & Co., T. & H. Smith & Co., Edinburgh; Foggett, Thirsk; Goodall & Co., Leeds; J. Richardson & Co., Leicester; Slinger & Son, York; McKesson & Robbins, New York. Special terms for large quantities may be had from

B. ROBINSON, Distiller and Brewer of British Wines, Church St., Pendleton. Manchester.

CASH PRICE**20s. for 12½ GALLONS.****CASKS FREE.**School of Cookery, Crystal Palace, S.E.
January, 1883.

MR. PETER TYRER,
SIR,—I have been using the "Borough"
Ketchup, and am very pleased with it. Its
flavour is excellent, both for all kinds of
Savoury dishes and Soups; and I most cer-
tainly should advise every cook and house-
keeper to use it, FOR I HAVE NEVER YET MET
ITS EQUAL.

MARIAN SMITHARD,
Lectress on Cookery.

MANUFACTORY—

70 LONG LANE, BOROUGH,
LONDON, S.E.

Scotch Agency—115 West Nile Street, Glasgow.

DO NOT THROW MONEY AWAY
BUT WRITE
FOR A
FREE SAMPLE OF
TYRER'S
"BOROUGH"
Ketchup
SENT FREE
TO ANY ADDRESS

SILVER MEDAL
LONDON.

 **SEVEN INJUNCTIONS** have been granted during the past few months.

 **CAUTION! "YORKSHIRE RELISH."** 

NOTICE IS HEREBY GIVEN that in several actions instituted by Messrs. GOODALL, BACKHOUSE & CO., of LEEDS, Injunctions have been recently granted by Judges of the Chancery Division of the High Court of Judicature, restraining several persons from using several Counterfeits of Messrs. GOODALL, BACKHOUSE & Co.'s Labels, and in particular against the use of the words "YORKSHIRE RELISH." The sole and exclusive right to the use of which words having been finally established by the above Firm, they will take immediate proceedings against parties manufacturing or offering for sale Sauce under the above title, not being of the manufacture of Messrs. GOODALL, BACKHOUSE & Co.

Information may be given to the undersigned,

J. SEYMOUR SALAMAN,

12 KING STREET, CHEAPSIDE, LONDON,

*Solicitor to the Trade Mark Protection Society.***TO INVALIDS****USE****MOIR'S**
SOUPS**IN 1-lb. and ½-lb. GLASSES.**

OX-TAIL SOUP (Clear)
MOCK-TURTLE SOUP (Clear)
BEEF TEA,
CHICKEN BROTH.

PREPARED**DANDELION****(LEA & PERRINS').****MADE WITH PURE****DANDELION ROOT & THE FINEST**
COFFEE.**Sold in Tins, at 8d., 1s. 6d., & 3s. each.****LIVER TONIC****(GEORGE & WELCH'S).****1s. 1½d., 2s. 9d., and 4s. 6d. per Bottle.****CARBOLINE (TOOTH PASTE)****1s. 6d. per Pot.***Supplied by the Patent Medicine Houses on the
usual terms, or the Makers***GEORGE & WELCH, WORCESTER.**

KREOCHYLE ^{BARFF} ^{AND} ^{WIRE.} LIQUID MEAT.

FOOD AND STIMULANT FOR INVALIDS AND INFANTS.

To be obtained of all Wholesale Chemists, and

Sole Manufacturers and Patentees: THE KREOCHYLE COMPANY, BIRKBECK ROAD, LEYTONSTONE, E.

Prices—Retail, 5s. per pint; 2s. 9d. per half pint; 1s. 6d. per quarter pint.

LEUBE-ROSENTHAL'S IMPROVED MEAT SOLUTION.

Prepared by R. STUETZ, Chemist, Successor to Dr. MIRUS, Jena, Germany.

This carefully prepared Meat Solution contains the real stimulating and nourishing constituents of the best quality of beef, freed of fat and sinews. It is exceedingly appetising, and easily digested even by the weakest stomach. It can be taken either entire or diluted with water. It is totally devoid of that obnoxious, nauseous taste so common to most of the meat preparations. It will keep good in hermetically closed tins for any length of time.

Retail Price per Tin, containing $\frac{1}{2}$ lb., 2s; Wholesale, per dozen, 17/ net.

Wholesale Depôt: H. POTHS & CO, 4 Sugar Loaf Court, Leadenhall Street, LONDON, E.C.

SPECIAL NOTICE & CAUTION.

BRAND & CO.

The Original Manufacturers of Essence of Beef (green label under wrapper), and other Specialities for Invalids, have

NOT REMOVED

From their SOLE ADDRESS, No. 11
LITTLE STANHOPE STREET, MAY-
FAIR, W, and caution the trade to

BEWARE of IMITATIONS.



HARVEY'S SAUCE

For FISH,
STEAKS,
GAME,
&c.

CAUTION.

Each Bottle
of this celebrated
Sauce, prepared from
the Original Recipe, bears
the well-known Label, signed—

Elizabeth Lazenby

This Label is protected by PERPETUAL INJUNCTION in Chancery of the 9th July, 1858, and without it none can be GENUINE.

Prepared only by E. LAZENBY & SON, LONDON.

And sold Retail by Grocers, Oilmen, Italian Warehousemen, &c., throughout the Kingdom.



Is most useful and economical to Hotel Keepers, Clubs, Restaurants, and the General Public.

It is indispensable with all kinds of made dishes, Soups, Gravies, Cold Meats, Salads, Cheese, &c., and its application to a Chop or Steak makes the repast a perfect luxury. With Fish it finds no rival. It is a perfect antiseptic and dietetic, and will be found beneficial to those suffering from want of appetite or weak digestion.

The Clarence Sauce differs from others in one grand feature, no animal or deleterious matter being used in its production. Its ingredients are composed of the finest vegetable productions selected from all parts of the world.

The celebrated Chef Francatelli averred that he never sent a made dish to table without this Sauce.

SOLE PROPRIETORS:

CLARENCE & CO.,

10 Dean Street, Holborn, LONDON, ENGLAND.

The Sauce is made in two strengths, "HOT" and "MILD."

Price 1s. per Small Bottle and 2s. per Large Bottle.

WHOLESALE TERMS AND SAMPLES ON APPLICATION. SPECIAL RATES TO SHIPPERS.

A FOOD for INFANTS and INVALIDS.

MILK MALTED FOOD.

(REGISTERED.)

The Pharmacist can now obtain for the first time in a wholesale form a thoroughly reliable Infants' and Invalids' Food, most carefully prepared by an accurate chemical process and on modern physiological principles, so that he will now be able to compete with the daily increasing demand for Proprietary Food by "putting up" a Food of his own, which can be retailed at an **Advantageous Profit**, as will be seen from the following calculation:—

Cost Price.		Retail Price.		Profit.	
28 lbs M.M.F.	£1 1 0	Will make at		Cost 6d. per tin,	
Tins, labels, and		least 56 tins at		or net profit	
time	0 7 0	1/ each	£2 16 0	of	£1 8 0
	£1 8 0		£2 16 0		£1 8 0

or it can be retailed ex char'd.

A sample will be sent, and charges paid on receipt of post-card. Each label bears full directions for use, and trade-mark.

PRICE: 9d. per lb.; £4 per cwt. net. Can be obtained from the Manufacturer, accompanied with postal order, or London reference.

IN BULK

T. WALKER, Manufacturing Chemist, 44 CLOTH FAIR, LONDON, E.C.

CLARK'S COFFEE EXTRACT.

The Best and Cheapest. No Waste, no Chicory. Saving time and money.
MADE IN AN INSTANT.

CLARK'S COFFEE AND CHICORY EXTRACT.

A marvel of quality and cheapness. No waste. Made in an instant.

CLARK'S EXTRACTS are in bottles to retail at 6d., 1s., and 2s., and should be sold by all Chemists, &c., throughout the world.

Clark's Extracts are made on a new and scientific principle, whereby the aroma of fresh coffee is retained unimpaired. They will keep in any climate, warm or cold, are very portable and highly concentrated, one teaspoonful of Extract making a cup of good coffee. Clark's Extracts are acknowledged by eminent and practicable judges the best in the market.

Wholesale of the usual Houses and of the Manufacturers,

E. CLARK & CO.,

OPTIMUS COFFEE WORKS, QUEEN'S ROAD, BATTERSEA, LONDON, S.W.

FRY'S MALTED COCOA

(PATENTED).

A Combination of FRY'S Pure COCOA EXTRACT with

ALLEN & HANBURY'S CONCENTRATED EXTRACT OF MALT

J. S. FRY & SONS, BRISTOL AND LONDON.

CHEMISTS' TEA AGENCY.

WALKER & DALRYMPLE'S

BROKEN-LEAF TEA, 1s. 8d. per lb.

A MONEY SAVING TEA. ABSOLUTELY PURE.

The small leaf from some of the finest India and China Teas. Produces a Tea in the cup, stronger, richer, and cheaper than most whole-leaf Teas. Agents appointed, where unrepresented, throughout the United Kingdom.

WALKER & DALRYMPLE'S

INTERMEDIATE TEA, 2s. per lb.

BEST at the PRICE EVER SOLD. Great strength and a most useful Tea where there is a large consumption. Recommended to all who wish to SAVE in their Tea. Agents appointed, where unrepresented, throughout the United Kingdom.

WALKER & DALRYMPLE'S TEAS.—

AGENTS APPOINTED, where unrepresented, throughout the United Kingdom.

Prospectus and Samples Free on Application.

Warehouses, 154, 155, 159 and 160 WHITECHAPEL ROAD, and BRADY STREET, LONDON.

P.O.O. payable at head office. Bankers, the National Provincial Bank England.

KANGRA VALLEY
Indian Tea Growers' Association,
7 NEW COVENTRY STREET,
LEICESTER SQUARE, W.

THE distinctive feature of the Business of this Association of Planters is, that the Tea is delivered to consumers in the original One lb. tin-foil lined parcels in which it is packed on the Plantations.

Chemist and Druggist.—"A new agency for tea is offered to chemists and druggists by the 'Kangra Valley Indian Tea Growers' Association,' and the fact that the well-known firm of Barclay & Sons are assisting this association in introducing their teas to the public through chemists is a guarantee that the business is of a more serious character than some other of the packet-tea agencies have proved. The Kangra tea plantations lie on the slopes of the North-West Himalayas, and this association appears to take great care in the selection of their leaves, and certainly offer a tea of fine quality. Their teas are packed in pound packets at the plantations, and in that form are offered for sale here in three different qualities."

These Teas, retailing respectively at 4/3, and 2/6, can be purchased in any quantity, either direct from the Store, 7 New Coventry Street, or from Messrs. Barclay & Sons, 95 Farringdon Street, Agents to the Association.

Special Terms granted to all Chemists and Druggists, to whom the Teas, on account of their absolute purity are particularly recommended.

MUSTARD.

FINCH, RICKMAN & CO.'S

Genuine Qualities

Are made from the finest mustard seeds only. Their compounds, as manufactured for upwards of a century, are guaranteed free from all ingredients imparting spurious heat, and are therefore equally suitable for both table and medical purposes.

6 BROKEN WHARF, UPPER THAMES STREET, LONDON.

USE FREE FROM ALCOHOL ARTIFICIAL OIL, OR PRUSSIC ACID.

UMNEY'S

ALMOND ESSENCE

PURIFIED BY AN IMPROVED PROCESS

WRIGHT LAYMAN & UMNEY, MANUFACTURING CHEMISTS SOUTHWARK, LONDON.



TRADE MARK.

R. J. FULLWOOD & CO.,

The Original Inventors of the Prime, Rich, Golden-colour Cake and Fluid Extract of

ANNATTO.

TO BE HAD GENUINE ONLY FROM THE STEAM ANNATTO WORKS,

31 BEVENDEN STREET (late 24 Somerset Place), HOXTON, LONDON.—Established 1785.

SPECIALLY ADAPTED FOR THE COLONIES AND HOT CLIMATES, BEING FREE FROM ALL HEATING AND IRRITATING PROPERTIES.

SCOTT'S MIDLOTHIAN OAT FLOUR

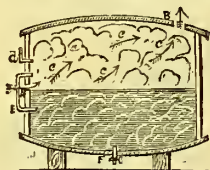
Is unequalled as the most Wholesome and Nutritious Food for Infants and Invalids.

SCOTT'S MIDLOTHIAN OAT FLOUR, made entirely from the finest quality of Midlothian Oats, is easily prepared, most satisfying, and invaluable in promoting the Growth of Bone, and a healthy regularity of system when given to infants, as it can be used through an ordinary Feeding Bottle by infants of a few weeks old.

Guaranteed perfectly Pure, being free from Husk and Vegetable Fibre. Highly recommended and used by Eminent Physicians at home and abroad.

Scott's Midlothian Biscuit, delicious, wholesome, and nutritious, made from Scott's Improved Midlothian Meal.

Sole Makers—A. & R. SCOTT, Kingston, Glasgow; London Depot and Office—14 Finsbury Square, E.C.



NEW METHOD OF MAKING VINEGAR

BY THE REVOLVING APPARATUS

(Michaelis' Patent).

For further particulars

See the Chemists' and Druggists' Diary, 1884, page 274,

OR APPLY TO

PAUL ROTHERMEL,

105 (late of 27) LEADENHALL ST. LONDON.

RANDALL'S BLACK CURRANT LOZENGES.

	Net Cash.	To Acct.
Plain Black Currant, old square ..	2 6	2 8
" " " rough oval ..	2 6	2 8
Black Currant and Ipecacuanha ..	2 6	2 8
Black Currant and Tannin.. ..	3 0	3 3
Black Currant Voice (warm astringent) ..	3 0	3 3
Black Currant Cough Lozenges * ..	3 6	3 10

(* Ipecac. and Morph. strength as "B. P.")

In Bottles, 1 lb., 2 lbs., 4 lbs., and 7 lbs. For Exportation, in soldered tins, of any size. From EDWARDS, London; through any Wholesale House; and from the Manufacturers,

RANDALL & SON, Southampton,

Who will forward Samples by post on application.

Also, BROWN COUGH LOZENGES, 2s., 2s. 2d.; 7 lbs. stamped with name free, and MUSK LOZENGES (Special), 2s. 6d., 2s. 8d.

N.B.—Medical Lozenges of every kind,

including those of the Pharmacopoeia of the Hospital for Diseases of the Throat, London.

WILLIAM BUSH & CO.,

Manufacturing Chemists,

YORK STREET, WALWORTH, LONDON, S.E.

ESTABLISHED OVER 40 YEARS.

MAKERS OF

CITRATE of MAGNESIA,
MERCURIALS of every kind,
SWEET SPIRITS of NITRE,
SAL VOLATILE, B.P. & P.L.,
PURE VEGETABLE
COLOURS of every descrip-
tion, in Sugar and Paste
(to this department W. B. &
Co. have given special atten-
tion, to meet the requirements
of the trade);
GLACIAL ACETIC ACID,

CONFECTIONERY
FLAVOURS of every kind,
and
FRUIT ESSENCES.
SUPER ESSENCE of LEMON
only,
MINERAL ACIDS of every
kind,
TARTARIC, CITRIC, and
other ACIDS (not makers of
these, but in a position to offer),
BORACIC ACID, &c.

SOLE PROPRIETORS OF

MARIGOLDINE,

NEW COLOUR FOR BUTTER, CHEESE, &c.



After a lengthened investigation, the Proprietors are enabled to offer this novel preparation, representing the rich colour of the Marsh Marigold, in a highly concentrated form. Being a Vegetable Extract, it will be found to impart to Butter a beautiful golden colour, free from taste, possessing its natural colour, and as pure as the herbace on which the animal feeds.

It is well known that in the Spring or Summer the rich colour of Butter is derivable from the Marsh Marigold and Ranunculi (Buttercups) of our pastures, and it has been the aim of the Proprietors to produce an article that will enable the dairymen to obtain uniformly the same results at all times of the year in the most agreeable form; and it is confidently believed that it will be found superior to every preparation hitherto sold for the purpose. Its perfect compatibility with oil and grease of every description (not watery compounds) make it useful for many other purposes in which it is desired to obtain a rich and delicate golden tint.

Sold by Chemists, &c., and Wholesale Houses.

W. B. & Co. solicit inquiries, and will be happy to furnish Samples and Prices at all times.

NOTICE TO CHEMISTS AND MANUFACTURERS.

DESIDERATUM MIXER

BRACHER'S PATENT

A REAL TIME, LABOUR, AND MONEY SAVER.

These Machines are admirably adapted for mixing all kinds of powders, heavy or light, in the shortest possible time, thereby superseding to a great extent the use of the pestle and mortar, supplying a long-felt want amongst Chemists and Druggists, Grocers, Confectioners, Druggists, Colour Merchants, and Manufacturers.

PRICE, WITH SIEVE AND CRUSHER COMPLETE, FROM £1.

CALCUTTA INTERNATIONAL EXHIBITION.

A GOLD MEDAL

has been Awarded to P. H. BRACHER & CO.,
77 High Street, Wincanton, for their Patent
DESIDERATUM MIXER, as per Cable Message
received 2nd Month 19, 1884.

TESTIMONIAL.

The Analytical Laboratory, 30 Hanover Street,

Edinburgh, March 7, 1884.

Dear Sirs,—In replying to your letter of the 5th inst. allow me to say that I have much pleasure in testifying to the efficiency of the "Desideratum" Mixer. Being the inventor of a complicated compound, with which I had no end of trouble in properly and rapidly mixing, I must say I am indebted to your machine very greatly on the score of *rapidity of operation*. I usually mix about 1 lb wt at a time; the material is heavy and apt to *clog*, but your machine has reduced these inconveniences to *nil*.

With best wishes,

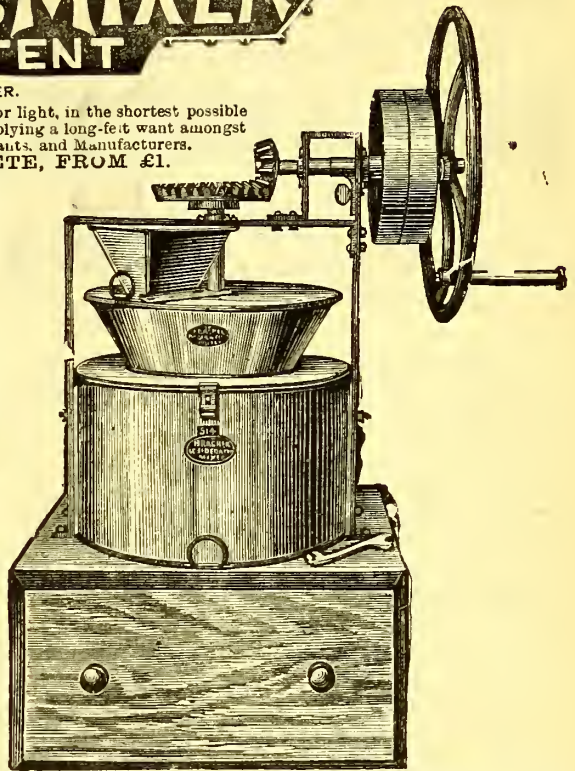
I am, yours very truly,

D. R. S. GALBRAITH.

Messrs. P. H. Bracher & Co.

Send for Illustrated Price List and full particulars, Post Free.

P. H. BRACHER & CO. (77 High Street), WINCANTON.



"MONTSERRAT"

PURE

LIME-FRUIT JUICE.

150,000 GALLONS IMPORTED IN 1884!

LIMETTA, OR PURE LIME JUICE CORDIAL,
AROMATIC, CLOVE, STRAWBERRY, RASPBERRY, SARSAPARILLA,
PINEAPPLE, JARGONELLE, PEPPERMINT, QUININE.

NOTICE TO THE TRADE.

Special attention is called to the above, which now meet with a steady demand.

Special Terms for 1 gross upwards. Showcards and Bills supplied on application.

Sole Consignees—

EVANS, SONS & CO., LIVERPOOL.

EVANS, LESCHER & WEBB,
London.EVANS, SONS & MASON, LIM.,
Montreal and Toronto, Canada.

Agents for the United States: HOLWAY, WRIGHT & RICH, New York, Boston, Baltimore, and Chicago.

The following well-known
MEDICINES, &c., OF APPROVED EFFICACY

ARE PREPARED FROM
PRESCRIPTIONS OF EMINENT PHYSICIANS
BY

REECE & COMPANY

MEDICAL HALL,
PICCADILLY, LONDON,

From whom they may be obtained direct or through any of the
Wholesale Houses.

PRICES AND TERMS ON APPLICATION.

DR. REECE'S SATURATED TINCTURE BUCHU,
For Excessive Irritation of the Bladder, Prostrate Gland, Urethra,
Rectum, &c., &c.
Retail 2/9, 6/-, and 10/- per Bottle.

DR. ROBINSON'S TINCTURE CORNEL,
For Local or General Debility from residing in Tropical Climates,
indulgences in either Drinking or Eating, &c.
Retail 2/9, 6/-, and 10/- per Bottle.

DR. SIGMOND'S TINCTURE CHIRAYITA,
For Indigestion arising from Nervous Excitement of the Stomach,
Obstruction of the Liver, &c., &c.
Retail 2/9, 6/-, and 10/- per Bottle.

DR. WILLIAM'S ALKALINE WINE COLCHICUM,
For Gout and Rheumatism.
Retail 2/9, 6/-, and 10/- per Bottle.

**DR. REECE'S ALKALINE ESSENCE OF
GINGER AND CAMOMILE,**
For Indigestion from Debility attended with Flatulence and Spasms.
Retail 2/9 per Bottle.

DR. DUNCAN'S LETTUCE LOZENGES,
For Catarrh, Cough, Consumption, &c.
Retail 1/1½ and 2/3 per Box.

DR. ANDREW'S ETHEREAL TINCTURE LOBELIA,
For Spasmodic Asthma.
Retail 3/- and 5/6 per Bottle.

REECE'S COMPOUND ASARABACCA SNUFF,
For Nervous Headache, Weakness of Sight, Hay Fever, Catarrh, &c.
Retail 2/6 per Bottle.

REECE'S ARTIFICIAL HARROGATE SALT,
For Inflammatory Irritations, Piles, Constitutional Costiveness, &c., &c.
Retail 2/- and 3/6 per Bottle.

DR. DICK'S BENGAL ANTIBILIOUS PILLS,
For obstinate or Constitutional Constipation, Sluggishness of the Liver,
loaded state of the Viscera, &c., &c.
Retail 2/9 per Box.

DR. SCUDAMORE'S CAJEPUT OPODELDOC,
For Rheumatic or deep-seated Pains, Enlarged or Stiff Joints, Chilblains, &c.
Retail 2/6, 5/-, and 10/- per Bottle.

PROF. HERTZ' LOTION OF THE MALIC ACID,
For Removing and Preventing Accumulation of Tartar on the Teeth.
Retail 2/- per Bottle.

WRIGHT'S LINIMENT FOR THE EAR,
For Deafness occasioned by Cold, Hardened Wax, &c., &c.
2/- per Bottle.

**REECE'S PREPARED CHARCOAL OF THE
ARECA OR BETEL NUT,**
For Preserving and Cleaning the Teeth.
Retail 2/6 per Box.

REECE'S PERIODICAL ABSORBENT PADS
Are without exception the most convenient, cleanest, and cheapest
articles yet introduced for the Comfort of Ladies.
Whilst Travelling Indispensable.

Belt and Support, in Boxes, 2/6 each.
Absorbent Antiseptic Pads, in Boxes, 2/- per dozen.

DR. REECE'S "MEDICAL-GUIDE TO HEALTH."

Simplest and best work of the kind.

Published at 168 Piccadilly, London. Price 5/- each

SEVEN PRIZE MEDALS AWARDED.

GOODALL'S HOUSEHOLD SPECIALITIES. YORKSHIRE RELISH.

THE MOST DELICIOUS SAUCE IN THE WORLD.

This cheap and excellent Sauce makes the plainest viands palatable, and the daintiest dishes more delicious. To Chops and Steaks, Fish, &c., it is incomparable. Sold by Grocers, Oilmen, Chemists, &c., in Bottles, 6d., 1s., and 2s. each.

CAUTION.—On each Yorkshire Relish Label is a Willow Pattern Plate, and name, GOODALL, BACKHOUSE & Co. No other is genuine.

Goodall's Baking Powder

THE BEST IN THE WORLD.

Makes delicious Puddings without Eggs, Pastry without Butter, and beautiful light Bread without Yeast. In 1d. Packets; 6d., 1s., 2s., and 5s. Tins.

Goodall's Quinine Wine

The best, cheapest, and most agreeable tonic yet introduced. The best remedy known for Indigestion, Loss of Appetite, General Debility, &c. Restores delicate individuals to health and vigour. In Bottles, 1s. 1½d. and 2s. 3d. each.

Goodall's Custard Powder

For making delicious Custards without Eggs, in less time and at half the price. Unequalled for the purposes intended; will give the utmost satisfaction if the instructions given are implicitly followed. Sold in Boxes 6d. and 1s. each.

Goodall's Ginger Beer Powder

Makes Three Gallons of the Best Ginger Beer in the World for 3d.

Is a delicious and invigorating beverage, possessing valuable medicinal properties. It is cooling in its nature, and a most wholesome beverage for both winter and summer. Sold in Packets, 3d. and 6d. each.

Goodall's Blanc Mange Powder

Is acknowledged by all to be the most convenient and economical preparation ever introduced, as, by its use, a most Rich and Delicious Blanc-mange may be produced in a few minutes at a trifling cost, and may be had of various flavours, i.e., Raspberry, Strawberry, Lemon, Almond, and Vanilla. Sold in Packets, 6d. and 1s. each.

Goodall's Egg Powder

Acknowledged to be the only real substitute for eggs yet discovered. Its action on Cakes, Puddings, &c., &c., resembles that of the egg in every particular, enriching them in colour and flavour, rendering them most wholesome and nutritious. One penny packet will go as far as four eggs; and one sixpenny tin as far as twenty-eight. In 1d. Packets; 6d. and 1s. Tins.

SOLE MANUFACTURERS—

GOODALL, BACKHOUSE & CO., White Horse Street, Leeds.

A Monthly Price List of Druggists' Sundries, Patent Medicines, &c.
can be had sent free on application.

F. DARTON & CO.,

MAKERS TO H.M.'S GOVERNMENT,

Established
1834.

45 ST. JOHN STREET, WEST SMITHFIELD.

Established
1834.

Darton's Improved Imperishable Index Clinical Thermometers,

As noticed in the *Lancet*, *Chemist and Druggist*, &c., can be obtained only of the Inventors and Makers; cannot get out of order, and are therefore specially suited for Export.

PLAIN CLINICAL THERMOMETERS,

(Fahrenheit or Centigrade Scale).

4 or 6 in., in case, 3/6 each.

4 in. or 6 in. ditto, contracted in Ebony Case, 4/ each.

If with Magnified Bore, 6/ each.

DARTON'S IMPROVED DITTO, IMPERISHABLE INDEX, 4 or 5 in., 5/ each.



FIG. 2.

Ditto, Enlarged and Magnified Bore, with lens front, 7/ each.



FIG. 2.

One Bent and One Straight 6-inch Clinical Thermometer, in Morocco Snap Case, 10/6 the set.

Kew Certificates, 1/3 each extra.

Thermometers for special purposes made to order at a few days' notice. A large stock of Barometers and Thermometers always on hand.

BATH THERMOMETERS, Japanned Tin Cases, Silvered Metal Scales, 8 inches long, 12/ per dozen.

Ditto, Enamelled Tubes, with Dr. Forbes' Specifications, 15/6.

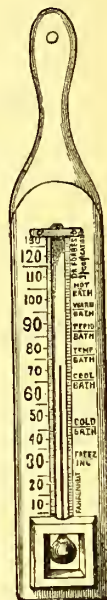
Ebonised Thermometers, with Enamelled Mercury Tubes, 4/6 per dozen.

8-in. Boxwood ditto, with spirit tubes, 6/ per dozen.

,, ,, Enamelled Minimums, 15/ per dozen.



DARTON'S IMPROVED PORCELAIN DAIRY AND BATH THERMOMETER cannot get out of order or illegible through use, as is the case with the ordinary Bath Thermometer, and is much cleaner for Dairy purposes. 36/ per dozen.



ELECTRIC BELLS.

New Form Metal Frame Electric Bell, with 2 1/2 Plated Dome, 4/6 each. Complete, with Large Battery, Push Piece and Wire, and Instructions for Fixing, 10/6.

If with best quality bell, 14/6.

Invalids' Electric Bell Set, with Bell and Battery in Polished Case, 30 feet of Flexible Line Wire, and Pear Push, 21/ each.

Invalid's Electric Bell Set, in polished Mahogany Case, with 3-in. best bell, 27/.

New Patent Electric Gas Lighter, 17/6 each.

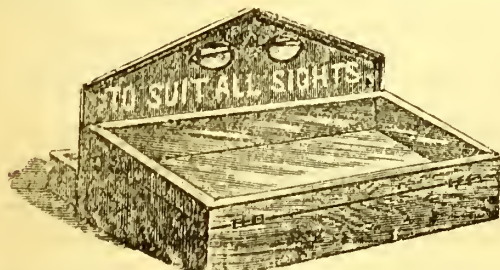
Estimates given for Fitting up Houses or Shops.

Magneto Electric Machines, in Pine Case, 9/ and 10/6; ditto in Mahogany, 16/6; ditto, best quality, with plated handles. &c., 22/6.

ILLUSTRATED PRICE LIST OF ELECTRIC BELLS AND FITTINGS SENT POST FREE ON APPLICATION.

SPECTACLES.

For the convenience of Customers who have not yet started the Sale of Spectacles, we fit up Show Cases, containing an assortment of Spectacles, complete with Sight Tester and Instructions, as follows:—



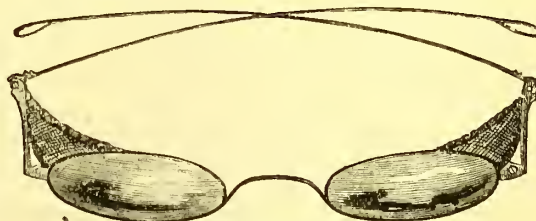
Our £2 2s. SHOW CASE for the Counter, in Polished Mahogany, contains 4 dozen Spectacles, Sight Tester, and Instructions for suiting sight.

Our £3 3s. CASE contains, in addition, 2 dozen Folders and 2 dozen Cases.

Larger sized Cases, in Polished Mahogany or Ebonised, with an assortment of superior quality Spectacles, Folders, and Cases, £6 6s. and £10 10s.

Ditto, with assortment of Best Pebble Spectacles and Folders, £21.

BOWMAN'S GOGGLES, with Neutral Tint, Domed Glasses and Gauge Cups, as recommended by the leading Oculists for weak and inflamed eyes. Best Quality, 78/ per dozen.



Cases for ditto, solid leather, 12/ per dozen.

NEUTRAL TINT, "D" EYE SPECTACLES, best quality, 48/ per dozen.

DOMED SPECTACLES, Coloured Glasses, common, 4/6, 8/, and 10/ per dozen.

Ditto, Best Steel Frames, 24/ per dozen.

Ditto ditto, and with Worked Glasses, 30/ per dozen.

Illustrated Price List of Spectacles on application.



W. H. BAILEY & SON,

38 (late 16) OXFORD ST., LONDON,

Six doors from Hanway Street.

ESTABLISHED A.D. 1833.



FIRST PRIZE (SILVER MEDAL) FOR TRUSSES AWARDED BY THE
WORSHIPFUL COMPANY OF CUTLERS OF THE CITY OF LONDON, MAY, 1879.

FIG. 1.

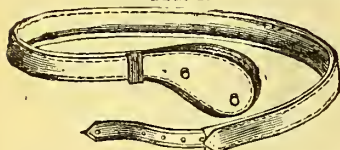


FIG. 4.

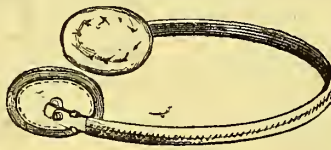
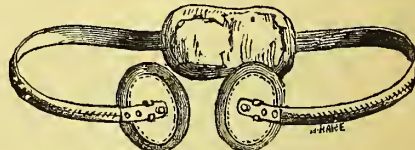


FIG. 5.



TRUSSES.

Circular Trusses, single, as Fig. 1, basil and chamois or basil and moleskin	per doz.	£1 1 0
Circular Trusses, double, basil and chamois or basil and moleskin	per doz.	1 14 0
Salmon & Ody's Expired Patent, single, Fig. 4	per doz.	2 14 0
Salmon & Ody's Expired Patent, double, Fig. 5	per doz.	3 0 0
Moc-Main Lever, single	each	0 8 0
Moc-Main Lever, double	each	0 13 6
Coles's Expired Patent, single	each	0 6 0
Coles's Expired Patent, double	each	0 12 0
Scrota Trusses, basil and chamois or moleskin, single	each	0 4 0
Scrota Trusses, basil and chamois or moleskin, double	each	0 7 0

SUSPENSORY BANDAGES.

No. 1. Cotton Bags and tape under-straps	per doz.	£0 8 0
2. Cotton Oxonian, with drawing-strings	per doz.	0 10 0
3. Silk Bags and tape under-straps	per doz.	1 1 0
4. Silk Oxonian, with drawing-strings	per doz.	0 18 0
5. Silk Oxonian Bags bound with elastic	per doz.	1 4 0

SUSPENSORY BANDAGES—continued.

No. 6. Silk Oxonian, superior quality, bands of buff jean, with drawing-strings	per doz.	£1 4 0
7. Silk Bags, to button on, with tape under-straps	per doz.	1 1 0
8. " " " under-straps to button	per doz.	1 4 0

ELASTIC STOCKINGS, KNEE-CAPS, ETC.

Manufactured expressly for
Export, and warranted to stand a
hot climate better than any others
in the Market.

	Silk.	Snper. Silk.	Cotton.	Snper. Cotton.
Stockings	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Knee-caps	0 10 0	0 15 0	0 6 0	0 7 0
Calf-pieces	0 6 6	0 10 6	0 4 0	0 5 6
Socks	0 7 6	0 10 0	0 4 6	0 6 0
Wristbands	0 5 6	0 8 6	0 3 10	0 5 0
Knee Stockings	0 2 3	—	0 1 8	0 2 0
Belts, to draw on	0 16 0	1 5 0	0 9 2	0 12 1
	0 16 6	—	—	0 12 0

The above may be obtained direct from the Manufacturers, or from their Wholesale and Export Agents
Messrs. Barclay & Sons, 95 Farringdon Street.

UNIVERSAL TUBULAR WATER & AIRBED

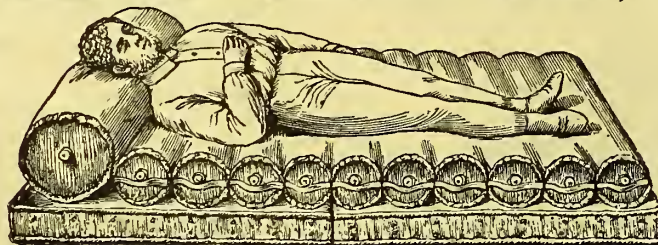
Prize Medals, Sanitary Congress, 1878; Industrial Exhibition, York, 1879; Certificate of Honour, Sanitary Congress, 1879; Brighton, 1881; International, 1881; Kensington, 1882.

POCOCK BROTHERS,

PATENTEES AND SOLE MANUFACTURERS,

235 SOUTHWARK BRIDGE ROAD, LONDON.

Consists of a series of separate and distinct cylinders, any diameter and suitable length, made of Waterproof material either for Water or Air, fitting into a case which keeps them side by side, but slightly apart.



ITS ADVANTAGES
OVER
ORDINARY WATER
OR
AIR BEDS ARE AS
FOLLOWS:—

1. In cost it is less expensive.
2. It is warm and light, and well adapted for a camp or field-bed, being waterproof.
3. It is quickly filled and easily adjusted.
4. It admits of ventilation in the space between the tubes.
5. It can be regulated so as to relieve pressure from any part required.
6. By the addition of tubes it will raise one part of the body higher than the rest.
7. By the temporary removal of one or two tubes it affords room for the introduction of bed-pan.

8. It can be inclined to any angle (even when filled with water) to suit the condition of the patient.
9. It is free from noise and surging, so disagreeable to the invalid on changing his position on a water-bed.
10. In case of injury to a tube it can be withdrawn, and a fresh one substituted at a trifling cost, and without loss of time; whereas the ordinary water bed if injured in any part (from being in one compartment) is rendered useless.
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NEW IMPROVEMENTS IN PHARMACY.

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"Is an ingenious and convenient device for inhaling chloride of ammonia fumes. By its use the chloride of ammonium is brought in more intimate contact with the mucous surfaces of the passages of the nose and throat than by any other form of inhaler."—THE MEDICAL PRESS AND CIRCULAR Reports.

EXTRACT OF MALT (KEPLER).

THE LANCET says of the Kepler Extract of Malt: "The best known, and in this country the largest used, Extract of Malt. It is as distinct an advance in therapeutics as was the introduction of cod-liver oil." And further adds, "It is very good, and may be used with confidence."

COD-LIVER OIL WITH EXTRACT OF MALT (KEPLER).

This is an emulsified combination of the purest fresh Norwegian Cod-Liver Oil with 50 per cent. of Extract of Malt (Kepler).

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Of Chlorate of Potash and other drugs usually employed for throat affections. Chlorate of Potash with Borax, Chlorate of Potash with Chloride of Ammonium, Chloride of Ammonium with Borax, &c. The pure drug, without any addition, is compressed in very small lenticular discs, which are easily retained in the mouth while singing or speaking. The great advantage of these Tablets over the ordinary lozenges is, that they are free from the irritating saccharine matter with which ordinary lozenges are diluted. They are now almost universally prescribed by the Profession in preference to the usual gargles, for when allowed to dissolve in the mouth the saliva becomes charged with the salt, carrying it directly to the affected parts, thus really securing all the beneficial effects of a continuous gargle, without the injurious exertion which was required by the old method. Supplied in packages at 1s., 2s., and 3s.

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READY AND ENTIRE SOLUBILITY.

PERFECT PRESERVATION OF THE DRUG.

Their convenience and utility will at once be apparent on examination.

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Morphiæ Sulphas .. 1-6 grain.	Morphiæ Sulphas .. 1-12 grain.
Morphiæ Sulphas .. 1-8 grain.	Atropiæ Sulphas .. 1-250 grain.
Morphiæ Sulphas .. 1-12 grain.	Atropiæ Sulphas .. 1-60 grain.
Morphiæ Sulphas .. 1-3 grain.	Atropiæ Sulphas .. 1-100 grain.
Atropiæ Sulphas .. 1-120 grain.	Atropiæ Sulphas .. 1-150 grain.
Morphiæ Sulphas .. 1-4 grain.	Strychniæ Sulphas .. 1-60 grain.
Atropiæ Sulphas .. 1-150 grain.	Strychniæ Sulphas .. 1-100 grain.
Morphiæ Sulphas .. 1-6 grain.	Strychniæ Sulphas .. 1-150 grain.
Atropiæ Sulphas .. 1-180 grain.	

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5. It does not blacken the teeth.

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Absolute Purity.
Delicacy of Flavour.
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THE CHEMIST AND DRUGGIST is supplied regularly by arrangement with their respective Councils to all members of the following societies:—

- The Pharmaceutical Society of Victoria.
- The Pharmaceutical Society of New South Wales.
- The Pharmaceutical Society of Queensland.
- The Pharmaceutical Society of New Zealand.

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PUBLISHER'S NOTICE.

The Diary, with its popular "treatise on dispensing," is selling very rapidly, and subscribers requiring extra copies for their apprentices or assistants are requested to make early application. The price to subscribers is 2s. 6d., and to non-subscribers 3s. 6d., per copy.

Next month (January 15, 1885) we shall open our new volume with our usual nearly universal circulation to chemists and druggists in the United Kingdom and British colonies, and we shall add to this a special circulation to the pharmacists and importing druggists of Spain and the Spanish-speaking countries in Central and South America. With all these copies we shall send a supplement giving a general *résumé* of the articles of THE CHEMIST AND DRUGGIST in Spanish; and we are, besides, prepared to undertake free the translation of advertisements into Spanish for insertion in the number. We are convinced that there is great scope for increase of trade in British goods with those countries, and we advise firms who have suitable products to take advantage of this opportunity.

THE MONTH.

The report of the Government Inspector of Explosives (Major Cundill), in reference to the fatal accident which occurred in the shop of Mr. Balkwill, chemist, Kingsbridge, Devon, and which we reported last month, has been issued within the past few days. Major Cundill points out that the manufacture of coloured fires, as of gunpowder, in a chemist's shop, or rather in any unlicensed premises, is contrary to the provisions of the Explosives Act, and renders the person offending liable to a penalty of 100l., and he adds that in no case would a chemist's, or any public shop, ever be licensed for the manufacture of any fireworks, especially of such dangerous fireworks as coloured fires containing chlorate." The inspector credits Mr. Balkwill with the frank manner in which he gave his evidence.

* *

Our offer of a prize for a competition of chemists' circulars has not proved a marked success. Only about thirty responses were received. We have, however, awarded the prize and given an extra one. We shall probably try the experiment of another competition soon, when we hope to get a more lively contest.

* *

The Executive Committee of the Chemists and Druggists' Trade Association and the Council of the Pharmaceutical Society are to confer on January 6 "as to the expediency or otherwise of pharmaceutical legislation." What new circumstances have arisen which have rendered a discussion "as to the expediency or otherwise" necessary? The expediency, and, indeed, the urgency of some legislation have been admitted long ago by both bodies.

* *

The Local Government Board must now be added to the already numerous list of bodies which devote some portion of their skill to harassing pharmacists. In publishing the reports of the public analytical work of 1883, the Board have taken the opportunity of publishing some injurious inferences respecting the degree of accuracy with which prescriptions are dispensed. Public analysts say they examined 304 specimens of drugs last year, and found 50 of these adulterated. The Board infer that this is about the proportion in which drugs generally sold are deficient in quality. They ignore the fact that a large bulk—probably the majority—of the drugs examined were obtained from grocers and hucksters, and therefore that the inference as to prescriptions is quite a baseless one.

* *

Hydrochlorate of cocaine, which we mentioned last month, has attained an extraordinary literature of its own in a very brief space of time. It appears to have a wonderful anæsthetic effect, especially on the eye. We give a summary of the results attained by various operators.

* *

The year now drawing to a close will not figure in history as a distinguished one for pharmacy. Political failures and commercial dullness have characterised its record, and no striking events have occurred with which to associate it in the future. The drop in quinine and the recent jump in iodine have been the most noticeable events on the markets. In pharmaceutical history the rejection of the society's amended bill by the Privy Council, and the distinct announcement by the Government that they intend to bring in some bill concerning the sale of poisons and patent medicines, are the chief features. We do not intend to make up an article to recite the transactions of the year in detail, but we hope none of our subscribers have any individual complaint against the year, and to each and all of them we wish that the next year may be in all respects a better one.

The Pharmaceutical Council.

THE usual monthly meeting of the Pharmaceutical Council was held on December 3. The President, Mr. M. Carteighe, was in the chair. All the members were present except Mr. Andrews.

RESIGNATION OF MR. ANDREWS.

The first business was reading a letter from Mr. Andrews, who with much regret felt compelled to resign his position on the Council. He found he should be for some months so much engaged that it would be impossible to give the necessary time and attention to the performance of the duties of the office. The Council passed a resolution expressing regret at receiving the resignation of Mr. Andrews, and recording its appreciation of the services he had rendered.

THE INSTITUTE OF CHEMISTRY.

The Privy Council had sent to the Pharmaceutical Council a petition and draft charter which had been submitted by the Institute of Chemistry, and asked if the Pharmaceutical Council had any observations to make thereon. On the motion of the President, the thanks of the Council were tendered to the Lords of the Privy Council, and it was added that the Council saw no objection to the granting of the charter.

THE BOARD OF EXAMINERS.

The appointment of examiners for the ensuing year was the next business. A letter was read from Mr. Sidney Plowman, dated from St. Thomas's Hospital, stating that, as he had accepted a medical appointment in St. Thomas's Hospital, although it was one not accompanied by any emolument, he felt it his duty to ask that he should not be reappointed. The President, the Vice-President, and Mr. Schacht, as a former Vice-President, all spoke from their direct knowledge of the valuable services which Mr. Plowman had rendered as an examiner, and a resolution was unanimously passed recording the high appreciation of the Council of those services. Subsequently the following gentlemen were appointed (subject to the approval of the Privy Council):—

England and Wales.

Barnes, James Benjamin, 1 Trevor Terrace, Knightsbridge, S.W.
Benger, Frederick Baden, 7 Exchange Street, Manchester.
Corder, Octavius, 31 London Street, Norwich.
Ekin, Charles, 2 Lampton Road, Hounslow.
Fletcher, John, Montpellier Avenue, Cheltenham.
Gale, Samuel, 225 Oxford Street, W.
Gerrard, Alfred William, University College Hospital, W.C.
Greenish, Thomas Edward, 5 Bathurst Street, Sussex Square, W.
Linford, John Samuel, 16 Gladstone Street, Hull.
Sonthall, William, 17 Bull Street, Birmingham.
Symons, William Henry, 2 Queen's Terrace, St. John's Wood, N.W.
Tanner, Alfred Edward, High Cross, Tottenham, N.
Taylor, George Spratt, 13 Queen's Terrace, St. John's Wood, N.W.
Thresh, John Clough, 11 Eagle Parade, Buxton.

Scotland.

Balldon, Henry Bellyse, 73 Princes Street, Edinburgh.
Clark, William Inglis, 26 South Back, Canongate, Edinburgh.
Gibson, Adam, High Street, Leven, N.B.
Gilmour, William, 11 Elm Row, Edinburgh.
Kinniamont, Alexander, 69 South Portland Street, Glasgow.
Maben, Thomas, 5 Oliver Place, Hawick.
Neasbit, John, 162 High Street, Portobello.
Stephenson, John Bertram, 48 North Frederick Street, Edinburgh.

It will be seen that Mr. Gerrard and Mr. Symons replace Mr. H. B. Brady and Mr. S. Plowman. The Scotch Board is unchanged.

RESTORATIONS TO THE REGISTER.

The names of the following persons were restored to the register. Each had made the necessary declarations, and paid a fine of 1*l.* 1*s.*:—

William Ross Smith, 2*B* Prince's Road, Liverpool.

Roscoe Charles Spurrin, 28 Portland Square, Plymouth.

BENEVOLENT FUND.

The Committee recommended the following grants:—

Ten pounds to a former member and subscriber to the fund, aged 70, suffering from heart disease, and with an invalid wife. Applicant has had two previous grants. Warwickshire.

Five pounds to the widow, aged 36, of a registered chemist and druggist, having four children. Applicant has had four previous grants of 10*l.* Yorkshire.

Ten pounds to the widow, aged 40, of a registered chemist and druggist, who was in business eleven years. Warwickshire.

Five pounds to a registered chemist and druggist, aged 58, in ill-health. Has had nine previous grants. Renfrewshire.

Fifteen pounds to the widow of a registered chemist and druggist, aged 44, having five children, one of whom has just been elected to the Infant Orphan Asylum without the expenditure of the money which was voted three months ago for the purpose. Bucks.

One case had been deferred.

The Committee also recommended that 5*l.*, the proceeds of Mr. Robbins's special donation, be given to Mr. Charles Tucker, he being the annuitant who had subscribed the largest amount to the Benevolent Fund.

These recommendations were all agreed to.

The President read a letter from the widow of the late Mr. Peter Squire, who sent a cheque for 100*l.*, which she desired should be received as a legacy from Mr. Squire. She added, "Although my husband omitted to mention it in his will, I am only carrying out his wishes in sending this cheque to you."

The President also reported that he had received a cheque for 20 guineas from the Committee of the recent dinner of Scotch pharmacists in Edinburgh, that being the balance left after paying expenses; and he further mentioned that the relative of one of the candidates for an annuity had obtained in one small district 107 new subscriptions for the fund, realising 81*l.* 14*s.* 6*d.* This showed what could be done by individual effort.

THE MUSEUM.

Among the gifts to the museum reported by the Library, Museum, Laboratory, and House Committee were—

Twelve specimens of native remedies from the Congo, from Sir James Marshall.

Four varieties of vegetable tallow from Sumatra, from Mr. F. O. Forbes.

Specimens of the oils of *Camellia oleifera*, *Elaeoecia cordata*, *Perilla oeymoides*, *Brassica splenes*, and whale oil, and of the starches of *Pteris aquilina*, *Pueraria Thunbergiana*, *Erythronium grandiflorum*, and some seaweed products from Japan, from Mr. K. Nagai, Japanese Commissioner at the International Health Exhibition.

Specimens of the resins of *Cedrus Libani* and *Pinus Laricio*, indigo from *Polygonum tinctorium*, gum of *Khaya Senegalensis*, and seed-pods of *Parkia biglobosa*, from the Directors of the Royal Gardens, Kew.

Herbarium specimen of *Polygala Senega*, var. *latifolia*, and two specimens of *Senega* root, from Messrs. Merrell, Thorp & Lloyd, Cincinnati.

Specimen of *Rio ipecacuanha*, from Messrs. Wright, Layman & Umney.

Specimen of oil of limes, from Messrs. Kuhner, Henschel & Co.

Specimens of the endocarps of *Prunus occidentalis* from Jamaica, from Messrs. Burgoyne, Burbidge, Cyriax & Farries.

Specimens of the following Brazilian drugs:—*Chenopodium ambrosioides*, *Scoparia dulcis*, *Solidago vulneraria*, "Baliera," "Cambara," and Brazilian vanilla; and Herbarium specimens of *Artemisia Cina* from Tashkent, from Professor Flückiger.

PROPOSED NEW BY-LAWS.

The Committee appointed to prepare some new by-laws had submitted a "draft of proposed by-laws," which was on the agenda for consideration. Mr. Hampson urged that the Council had not yet had time to consider the effect of these by-laws, and he advocated that no conclusion concerning them should be arrived at that day. He was supported by Mr. Borland, Mr. Richardson, Mr. Symes, Mr. Bottle, and others. This course was agreed to, the draft being afterwards read and explained by the President in committee, and further consideration thereof being postponed till the January meeting.

THE NEW PREMISES AT EDINBURGH.

A report of the House (Scotland) Committee was submitted, and the President took advantage of the opportunity to comment on the admirable manner in which all the arrangements had been carried out by that Committee, and by Mr. MacEwan. He spoke also of the gracious cordiality with which those who had attended the festivities had been received in Scotland, and he especially named Messrs. Young, Buchanan, and George Mackay, who had specially laid themselves out to entertain the visitors. The Vice-President, Mr. Richardson, and Mr. Robbins, who had also attended the meetings, all spoke warmly of the pleasure they had experienced.

LEGAL PROCEEDINGS.

The report of the General Purposes Committee contained the usual letter from the Solicitor stating the progress of cases which had been placed in his hands. Several cases of alleged infringement of the Pharmacy Act had been considered by the Committee, and proceedings were recommended to be taken.

THE LATE MR. PETER SQUIRE.

The President read a letter which he had received from Mr. Balmanno Squire, offering to place at the disposal of the Council a medallion of his father with a suitable inscription, and moved that—

Mr. Balmanno Squire's present to the Society of a bronze medallion bearing the likeness of his late father be accepted, and that the thanks of the Council be given to Mr. Balmanno Squire for the gift.

This was carried unanimously.

PHARMACEUTICAL LEGISLATION.

The President read a letter from the Secretary of the Chemists and Druggists' Trade Association, enclosing a resolution that the Council of the Pharmaceutical Society be requested to receive a deputation from the Association to confer with them as to the expediency or otherwise of further pharmaceutical legislation. He suggested that the deputation should be received on the Tuesday before the next Council meeting.

The Council went into committee to consider the letter.

On resuming, it was resolved that the proposed deputation be received at 4 o'clock on Tuesday, January 6.

ELECTION OF ANNUITANTS ON THE BENEVOLENT FUND.

The following applicants were elected as annuitants on the Benevolent Fund of the Pharmaceutical Society on December 5:—

	Votes
Sanders, George Lee	4,003
Davis, Francis	3,717
Cooke, John	3,474
Fowler, Sarah Anne	2,785
Davies, Caroline C.	2,233
Glynn, Elizabeth P.	2,203

The following were not elected, but their votes will be credited at the next election:—

	Votes
Braithwaite, Anne E.	1,711
Johnson, George T. F.	1,117
Stephenson, Thomas	736
Read, Robert Elimelech	723
Goadsby, Elizabeth	525

4,033 voting papers were received, of which number 74 were informal (53 unsigned) and were disallowed.

Pharmaceutical Society of Ireland.

THE monthly meeting of the Council was held on December 3. The President, Mr. J. E. Brunker, M.A., in the chair.

The other members of the Council present were Messrs. Pring, Hodgson, Grindley, Simpson, Wells, Dr. Collins, and Dr. Montgomery.

The Registrar read a letter from Dr. Kaye, Q.C., Clerk of the Privy Council, announcing that the Lords Justices had approved of the resolution passed by the Council on July 2 last, by which they recognise the certificates in practical chemistry of the Government School of Science, South Kensington.

The remaining business consisted of a short discussion relating to a correspondence which had taken place with Messrs. R. Price & Co., 26 Clare Street, Dublin. The principal of that firm had recently died, and the qualified manager did not give his whole time to the business. It was questionable, therefore, if the requirements of the Act were met. The Registrar was instructed to explain this to the trustees.

Metropolitan Reports.

EXTRAORDINARY SUICIDE.—On November 10 the deputy-coroner for East Middlesex held an inquest at Limehouse on the body of Mr. Robert Archibald Pereira, aged 55. He had been to Mr. Hatfield's, a chemist, with a halfpennyworth of cat's meat, and said he wanted some strychnine poured on it, sufficient to kill a dog, and he was supplied with it. He then tied the meat together, and sucked it. The jury returned a verdict of "Suicide whilst suffering from temporary insanity."

THE CHEMISTS' ASSISTANTS' ASSOCIATION held a conversation at St. James's Hall on Wednesday evening, November 19. A large number of the members and their friends attended, more than 300 ladies and gentlemen making up the company. Among the guests were several well-known pharmacists. There was an excellent collection of objects of scientific interest, and a brilliantly performed programme of vocal and instrumental music filled up the vacant places in the evening. At 11.15 a new feature, dancing, was introduced, and kept up with much spirit till 2 A.M. The quadrille band, we are informed, "gave great satisfaction, and the floor was in surprisingly good condition." Whether the assistants were next day is not reported, but all present seem to have thoroughly enjoyed the entertainment.

THE ALLEGED DANGER OF PATENT MEDICINES.—Dr. Danford Thomas held an inquest last month at the Providence Hall, Paddington, on the body of Elizabeth Clark, aged 52, of No. 16 Sale Street, Edgware Road. Deceased's son left home one morning, and during the day one of the lodgers told him that his mother wanted to sleep, and when he went home he was not to make a noise. At night, on his return, he found her dead. The Coroner: Was she in the habit of taking anything to make her sleep? Witness: Not that I am aware of. The Coroner: Do you know anything of these bottles (three small chlorodyne)? Witness: Yes; two of them I took last year for diarrhoea, but I don't know anything of the other. Dr. Capon, Edgware Road, deposed that he was called in at nine o'clock in the evening, and found the deceased warm, but dead. He found three bottles (two empty and one half-full) of chlorodyne. He had since made a post-mortem examination, and found old lung and heart disease and inflammation of the bowels. Owing to deceased having inflammation of the bowels opium accelerated her death. The jury returned their verdict, "That deceased died from opium poisoning from misadventure, and they would call the attention of the public to the danger of taking patent medicines without the advice of a medical man."

Provincial Reports.

BIRMINGHAM.

Notes Written for THE CHEMIST AND DRUGGIST.

Trade during the past month throughout the town has been exceedingly flat, no matter from what trade inquiries are made. The suburbs and country districts are no better. A chemist from the country, visiting the Cattle Show, informed me that his returns "were just one-half the last two months (October and November) to those of the two previous months (September and August)." May the present month, with its Christmas festivities, show an improvement!

"Teeth on the co-operative system" is the latest addition in this "co-operative age." In a shop-window at Aston this attractive announcement appears.

As illustrative of what a chemist may branch into by directing his knowledge of chemistry to daily wants, the late "King of Washing Powders," Mr. Robert Spear Hudson, formerly a chemist at West Bromwich, is a practical example. His will has been recently proved, the value of the personal estate amounting to upwards of 295,000%.

It is the intention of a brother-chemist, who has been amongst us for some years, and has been fairly successful in business, after disposing of his principal and branch shops, to make a home across the water.

The premises of an old chemist's business, which have been closed for the last few years, are to be let at Christmas next, when the time of the present holder of the lease expires, at a rent of 150%, which is now being paid. To an active business man, with a fair amount of "tact, push, and capital" behind him, this cannot help but lead to successful issues.

"He is the luckiest chemist I ever knew," was said by "one on the road" a few days ago. The chemist mentioned has been the happy recipient, not once or twice, of a lump sum, and now he has purchased a farm some distance from the town, to which he drives daily.

I hear of serious litigation going on between a well-known respectable chemist and the proprietors of a large co-operative store.

In August I mentioned the case of Charles Ernest Hands (son of an old chemist) swallowing some nitric acid; it produced traumatic stricture of the oesophagus. The operation of gastrotomy has been successfully performed, and the youth has quite recovered; he is now able to feed himself regularly through the perforation made into his stomach, and is gradually getting stronger and gaining flesh.

Mr. Robinson, "Medical Chemist," has removed from 111 to 30 Suffolk Street (the premises he had previously occupied).

The "courage and pluck" which we are pleased to regard as typical of Englishmen is exemplified in Mr. Critchlow, from Gloucester, who has opened a new business called "The Ladywood Pharmacy," at the corner of Alston Street and Monument Road, within 100 yards from a "cutting" chemist.

Mr. Newton Mason has opened a "branch" between his present one at West Bromwich and his principal shop at 35 Great Hampton Street.

Messrs. J. J. Bush & Co. have purchased the business lately carried on by Mr. Wheatley, 141½ Sand Pits.

An inquest was held at the Coroner's Court on Nov. 26 concerning the death of Joseph Gilman (39), a commercial traveller of Sutton Coldfield. He was found dead in bed at the Queen's Hotel on Monday morning. It was stated he was a man of intemperate habits and took chlorodyne; a bottle which had contained some was found near him. It was shown that he must have taken 8 doses at one time. A verdict of "Suicide whilst in a state of temporary insanity" was returned.

On December 6 an old woman, aged 65, residing at Holloway Head, took a quantity of vermin-killer. Her daughter detected her in the act of taking the poison, and immediately took her to the Queen's Hospital, where emetics were successfully administered.

A social meeting in connection with the Midland Counties Chemists' Association was held on November 21 at the Grand Hotel. Light refreshments were provided, between sixty and seventy apprentices, assistants, and chemists being present. The newly-elected president (Mr. T. Barclay) gave a practical address, which was attentively listened to. The speaker forcibly advocated the necessity of an early and thorough qualification for the duties of the business in which those present expected to be engaged. After a few other brief speeches twenty-five young men expressed their willingness to join the classes. It was suggested to hold a similar social meeting once in every quarter, and also to have an annual picnic on the August Bank Holiday, when those of a studious inclination could have a practical lesson in botany. The rest of the evening was occupied with a programme of songs and musical performances.

Since the meeting a programme of the classes has been published. They are to be adapted for the Preliminary, Minor, and Major examinations. Mr. Stokes Dawson, pharmaceutical chemist; Mr. F. H. Alcock, Pereira medallist; Mr. G. E. Perry, pharmaceutical chemist, and Mr. A. E. Robinson, F.C.S., will conduct the several classes. About thirty young men have joined hitherto.

BRIDGNORTH.

GOODS IN EXCESS OF ORDER.—At the Bridgnorth County Court, on November 13, the case of Bell, Son & Co., medicine vendors, Liverpool and London, v. Joseph Weavers, grocer, Bridgnorth, was heard. The claim was for 4*l.* 10*s.* 10*d.* The plaintiffs were non-suited, having, as stated, sent goods—viz., cough balsam and "life elixir," pills, and worm-cakes—in excess of order given, which was not found out till unpacking goods. It was alleged that the firm, instead of sending the invoice per post, enclosed it with the goods, or the chest of goods would not have been received. On finding out what was sent the goods were returned to the senders intact, but they refused to receive them. Judgment for defendant.

BRIDGWATER.

AN inquest has been held here on the body of an infant aged ten months, who was accidentally suffocated by the mouthpiece of a feeding-bottle getting embedded in its throat whilst sucking it.

CHESTER.

POISONED BY COUGH-LOZENGES.—On the 4th inst. Dr. Grainger, of Chester, was called to attend several children residing in Harrison's Court, who were seriously ill, manifesting all the symptoms of poisoning from morphia. The doctor had at first no hopes of saving one boy, who was rapidly dying. The stomach-pump was, however, used effectually, and with constant attention and care the lad recovered. On searching their pockets the source of their illness was made apparent. They were full of cough-lozenges. It seems that the boys had found about 4 lbs. of cough-lozenges containing morphia in a confectioner's shop in Northgate Row recently vacated by Mr. Eddy. The lozenges are described as "Bower's."

EDINBURGH.

MR. GEORGE COWIE, late of Messrs. Duncan, Flockhart & Co.'s establishment in North Bridge, has acquired the business carried on for some years past in Queen Street by Mr. Charles Billing. Mr. Cowie has got into a good district for a first-class family business. Mr. Billing restarts in George Street.

A very old-established and important business in the city is likely to change hands at the beginning of the year.

It is reported that Messrs. Raimes & Co., of this city, have taken two of their first hands into partnership.

Messrs. Macfarlan & Co. had a fire at their chemical-works last month, which effected damage to the extent of some 200*l.* to 300*l.* This was covered by insurance, and business was not interrupted.

Since our last issue the Chemists' Assistants' and Apprentices' Association have held three meetings, all of which were exceedingly well attended, and were held in the Pharmaceutical Society's House. On November 19 an open meeting was held, and the attractions were good. Mr. Boa introduced to the notice of the members ray or skate liver oil, an article introduced by Mr. Henry, of Macduff, as a substitute for cod-liver oil. After referring to the composition of the oil, and the points in which it is said to be superior to cod-liver oil, Mr. Boa made some valuable comments on its emulsification. It appears that it is very difficult to emulsify, the most satisfactory emulsion being obtained by the use of yolk of egg. A discussion followed Mr. Boa's contribution. Thereafter was an interval during which those present examined various interesting objects. Mr. Thomas Stephenson showed the circulation of blood in the frog, which he afterwards described briefly and lucidly. Mr. Hill and Mr. MacEwan also gave descriptions of specimens of drug adulterations, &c., which were shown.

On the 26th the members again assembled, under the presidency of Mr. Turnbull, to hear a communication from Mr. W. H. Duncan on "Carnivorous Plants." This was a very thoughtful paper, in which the history of the subject was briefly reviewed, and the investigations of Darwin recounted in an interesting manner. It was stated that an eminent botanist has recently discovered that the base of the pitchers of species of *Nepenthes* secrete a honey-like fluid, which entices insects into the pitcher. The essayist showed specimens of all the plants upon which he treated, as well as drawings, and his paper gave rise to an interesting discussion. Mr. J. R. Hill followed with an account of the circulation of protoplasm in the cells of the aquatic roots of *Triantha*, a specimen of which had been shown at the previous meeting. In the course of the discussion which followed the speakers referred to the freshness which a botanical evening threw on the transactions of the Association, and averred that it could not fail to interest the members in a study which was apt to be neglected. After the transaction of some formal business the members adjourned, to meet again on December 3, when Mr. Hill delivered a very interesting lecture on "How to Study Materia Medica." The speakers who followed Mr. Hill were more complimentary than critical, and it was generally agreed that he had, in his lecture, rendered a distinct service to the "undergraduates" of the Association. The members then voted three guineas of a surplus from their last session's *r  union* to the Benevolent Fund, the balance being held in reserve for future festivities.

The ball which was held in January last under the auspices of the above Association was such a marked success that it has been decided to have a more brilliant affair on January 15 next. The business is being managed by a committee of enthusiastic volunteers, of whom Mr. Dawson, 139 Princes Street, is convener, and who will gladly furnish particulars and tickets to any chemist who wishes to "trip the light fantastic toe" in Scotch style.

LIVERPOOL.

THE Liverpool Registered Chemists' Trade Association held their annual dinner on November 26 at Fisk's Restaurant, Castle Street. The President (Dr. Symes) occupied the chair, and gave the special toast of the evening, "Success to the Association," to which Mr. Hocken, the honorary secretary, responded. Mr. R. Parkinson proposed "The Liverpool Chemists' Association," for which Mr. Davies, the President, responded. "The Pharmaceutical Society" was proposed by Mr. J. J. Smith, and answered for by Mr. J. A. Turner. For "The Trade Association," proposed by Mr. H. Wyatt, Councillor Woodcock responded, who also proposed "The Wholesale Trade," which was represented by Mr. W. P. Evans. Songs and music filled up the rest of the evening.

A correspondent sends us particulars of a case in Liverpool with the object of ascertaining how far the system adopted is an infringement of the Pharmacy Act. The names quoted are fictitious:—

Dr. Pennylove has opened a shop for the sale of drugs and the compounding of prescriptions. The doctor himself takes no part in the management of the shop, but has entrusted the entire management to an unqualified assistant, who has not even passed the Preliminary examination. The doctor has

not indicated in any way—by advertisement, by exhibiting his name on shop-front, door, or windows, on labels, bill-heads, &c., that he is proprietor of, or has any pecuniary interest in, the concern. Bill-heads for accounts for attendance by the doctor and for accounts for medicines compounded by the assistant are kept quite distinct, and are differently headed—the former being worded thus: "Mr. Workman, to Mr. Pennylove"; the latter, "Mr. Workman, to The Medical Hall." The assistant circulates counter-bills with his name at foot, printed in this fashion:—

Knacker's Pills and Ointment,
Sold by Donald Pestle,
The Medical Hall,
Loanpool.

If the doctor is the actual proprietor of the business he is within his legal rights. The Pharmacy Act (1868) said nothing in the first fifteen sections of the Act should extend to or interfere with the business of any legally-qualified apothecary. But it might have been doubtful whether it was a part of the business of an apothecary to run drug businesses with unqualified managers. So to more effectually secure risks for the public the amending Act of 1869 made the gap much bigger. Section 1 says: "Nothing contained in the first fifteen sections of the recited Act shall affect any person who has been registered as a legally-qualified medical practitioner before the passing of this Act; and the said clauses shall not apply to any person who may hereafter be registered as a legally-qualified medical practitioner, and who, in order to obtain his diploma for such registration, shall have passed an examination in pharmacy."

Mrs. Middlebrook, of Runcorn, died last month in her 100th year. She had spent her whole life in Runcorn, and for the past sixty years had lived under the shadow of a chemical-works chimney. "One swallow does not make a summer," but this lady's longevity has been quoted to show the sanitary blessings of chemical-factories.

LIVERPOOL CHEMISTS' ASSOCIATION.

Two meetings have been held during the past month, at which some valuable papers were read and discussed on the following subjects:—"The Analysis of Bark," by A. C. Abraham, F.C.S.; "Lupine Seeds as Food for Cattle," by Edward Davies, F.C.S., F.I.C.; "Cream of Tartaralene" and "The Estimation of Morphia in Opium," by Michael Conroy F.C.S.

MANCHESTER.

EARLY on December 4 Arthur Laurence, a chemist's assistant, who had been lodged in the police-cells at Selby on the previous evening, was found dead on the floor of his cell. The deceased, who had been discharged from his employment and his lodging through misconduct, was last seen alive, sitting on the edge of his bed, at eleven o'clock the previous night, there being two prisoners also in the same cell. It is supposed he died from an apoplectic fit brought on through excessive drinking.

ROSS (HEREFORDSHIRE).

EXTRAORDINARY RECOVERY FROM POISONING BY CORROSIVE SUBLIMATE.—A case was heard on November 28 at the Ross Police Court, in which a woman was charged with having administered to another a certain quantity of corrosive sublimate with the object of procuring abortion. The case was sent for trial by the magistrates, and the general facts need not be detailed; but the point of interest was the quantity of poison taken. The prisoner bought the poison at the shop of Mr. Thomas Matthews, chemist; she asked for 2*d.* of mercury; said it was for dressing sheep, and that her husband was going to use it. Mr. H. S. Smith, the assistant who supplied the poison, said he gave $\frac{1}{4}$ oz. Dr. Richards, who attended the girl, said she told him she had taken a lump in her supper beer, twice the size of a lump she showed, which weighed 26 grains, and the doctor, calculating from the $\frac{1}{4}$ oz., estimated that she had taken 56 grains. The girl had taken freely of bread and cheese and cabbage for supper, and this, he believed, saved her life. He gave her the white of eggs,

and she recovered after eleven or twelve days' illness. The doctor said in evidence the girl was not *enceinte*, and he further stated that corrosive sublimate could only produce abortion by killing the person who took it.

REPTON.

A BARRISTER POISONED.—The body of Edward Parry Cox, barrister, of Southampton, has been found dead in a field at Repton, Derbyshire, under circumstances of considerable mystery. A post-mortem examination was made, and at the inquest, on November 10, a verdict was returned that death was the result of an overdose of prussic acid taken as an antidote for alcohol.

ROMSEY.

CATTLE POISONED BY ACORNS.—It is reported that a number of cattle have been poisoned lately in this neighbourhood by overfeeding on acorns. In Savernake Forest, Marlborough, seven out of eleven heifers and steers belonging to Mr. Godding, of Brimsdale, were found dead, presumably from this cause.

SEDGLEY.

MR. THOMPSON, chemist, Bull Ring, had an unpleasant experience on November 19. A cattle dealer was in his shop, when suddenly a postmaster entered and committed an unprovoked assault on him. The only satisfactory part of the affair is that the assailant was fined 5*l.* for his luxury within a week.

TIPPERARY.

POISONED BY MISTAKING A MEDICINE.—A Poor-law Guardian, named Martin O'Dwyer, met his death on December 2 in Tipperary, through accidentally taking the wrong medicine. He was suffering from a cold, and had medicine ordered him, some of which was for external use only. A child who was attending him gave him some of this in mistake for a cough mixture, and he died in four hours from the effects of the poisonous draught.

TUNBRIDGE WELLS.

VACCINATION DEBATE.—At a meeting of the Tunbridge Wells Debating Club, on November 25, the question proposed for discussion was—"That it is unjust to enforce vaccination under penalties, and that, in the opinion of this Club, the Act of Parliament known as the 'Compulsory Vaccination Act' ought to be repealed." A dull evening was anticipated, but the subject proved to be quite an attractive one. Mr. Clifford made a lively attack on the Act, and on vaccination generally, and Dr. Pope conducted the defence with great ability. Only four votes were obtained against the Act.

IRIDIUM is a metal which is likely to have a much more extensive employment than it now enjoys. Hitherto it has been chiefly used in alloy with osmium for tipping gold pens. But an American pen manufacturer has discovered that by fusing the metal at a white heat and adding phosphorus, perfect fusion could be obtained, with all the hardness in the resulting material of the iridium itself. For mechanical applications this combination is exceedingly useful, as in the case of pen-points; and its adaptability is being proved in many ways. Agate, which has hitherto been employed for fine chemical balances, is now giving place to iridium, which takes a finer edge and is not so liable to catch or break. Hypodermic needles for surgical use are now made of gold and tipped with the iridium compound, which is not subject to corrosion like the old steel points, and it is also being largely applied to instruments for surveyors and engineers, and to electrical apparatus. Iridium can be obtained somewhat abundantly from the Russian platinum-mines in the Ural, and it is found in combination with gold in California. Mr. Dudley, of Cincinnati, is engaged on experiments with the object of plating vessels with iridium, and as the metal resists the action of acids it is likely that such vessels will be very useful in many chemical operations.

THE YEAR'S LEGISLATION.

SEVENTY-EIGHT Acts of Parliament have been added to the Statute Book this year, but very few are of general interest. Our task of epitomising such as at all concern chemists and druggists is therefore very short and easy.

LONDON BROKERS' RELIEF ACT.

By this Act, which came into operation on September 29, 1886, it is made unnecessary for a person, intending to act as a broker in the City of London, to be admitted by the Court of Lord Mayor and Aldermen, as was formerly requisite; and the payments heretofore required yearly by the Chamberlain of the City from brokers are abolished.

BANKRUPTCY APPEALS ACT.

This is a short but useful Act. It takes away the right of appeal direct from the county court to the Court of Appeal, which was given by the Bankruptcy Act, 1883; and instead thereof it gives a right of appeal to a divisional court of the High Court of Justice, of which the judge to whom bankruptcy business shall for the time being be assigned is to be a member. Any further appeal can only be made by special leave of such divisional court, or of the Court of Appeal. The alteration was very desirable, for the Court of Appeal is already over-burdened, and a case from the county court may well be heard by the bankruptcy judge and the two members of the Queen's Bench Division, while the power to appeal by special leave will ensure the thorough discussion of any doubtful or difficult points of law which may arise.

FRESHWATER FISHERIES ACT.

This is an amending Act, and gives additional powers to boards of conservators to make by-laws, &c. The subjects of such by-laws being the minimum size of the mesh of nets; the length, size, and description of nets which may be lawfully used, and the manner of using the same; and the prohibition of any injurious mode or instrument of fishing. Power to impose penalties necessarily accompanies the power to make such by-laws. Another section gives power to form fishery districts, and to appoint conservators in districts not frequented by any of the fishes mentioned in the Act of 1878, which is to be read as if it had been applicable to all freshwater fish, wherever trout and char are mentioned. Again, the penalty for putting poison, lime, or other noxious material in any water frequented by freshwater fish with intent to destroy any of the fish is increased to a fine not exceeding 20*l.*, or imprisonment with or without hard labour for not exceeding two months.

MARRIED WOMEN'S PROPERTY ACT.

A defect was discovered in the Married Women's Property Act, 1882, which this Act is intended to remedy. Power was given to prosecute a wife deserting and robbing her husband, or *vice versa*; and it was intended in both cases to give the aggrieved partner the right to give evidence in the prosecution; but by substituting reference for direct enactment, the latter part of the object was missed, in consequence whereof some prosecutions became abortive. The present Act directs that in any criminal proceedings under the principal Act, the husband and wife respectively shall be competent and admissible witnesses, and except when defendant shall be compellable to give evidence. There is an apparent ambiguity still; but if any further difficulty should arise in practice, a further amending Act will have to be passed.

SETTLED LAND ACT.

This is another amending Act. Any persons who may happen to be trustees, and transact the trust business without legal assistance, ought to know that they have now power to waive certain notices as to sale, exchange, or partition, which, by the principal Act, are required to be given to them; but as a whole the Act is interesting principally to lawyers. We may give a word of caution to those who take upon themselves the duties of trustees without professional assistance; such persons save expense to the trust estate at the risk of incurring serious personal responsibility. When a fine is received for the renewal of a lease under any power conferred by the principal Act, such fine is to be deemed capital money arising under that Act.

NATIONAL DEBT (CONVERSION OF STOCK) ACT.

This Act has been fully discussed in the newspapers, and its broad outlines are generally known. It authorises the creation of two new descriptions of Government stock, yielding dividends at the rate of 2*l.* 15*s.* and 2*l.* 10*s.* per centum per annum respectively; and the exchange of such stocks for an equivalent value in consols or other Three per Cent. stock at the following rates:—102*l.* of Two-and-Threequarters per Cent. stock; or, 108*l.* of Two-and-a-Half per Cent. stock for every 100*l.* of Three per Cent. stock. The dividends on the Two-and-Threequarters stock are to be payable quarterly, which will be convenient for small holders. Neither of the new stocks is to be redeemable until January 5, 1905.

CUSTOMS AND INLAND REVENUE ACT.

The changes in taxation made by this Act are not startling. The duty on carriage licences is reduced by one half, if the carriage is first kept on or after October 1, and that is all.

ELECTION (HOURS OF POLL) ACT.

This is apparently an experimental Act. By it the hours of polling in any parliamentary borough, having a number of registered electors exceeding 3,000, are extended; and in any such borough, at every parliamentary or municipal election, the poll is to commence at eight o'clock in the morning, and be kept open until eight o'clock in the evening. This is to give greater facilities for the labouring classes to record their votes.

PUBLIC LIBRARIES ACT.

The object of this Act is to remove doubts which have arisen as to whether authorities, acting under the Public Libraries Acts, have power to fulfil the conditions required for a parliamentary grant in aid of the establishment of a school of science and art, a laudable object, which is attained by expressly giving the requisite powers.

BUILDING SOCIETIES ACT.

This is an explanatory Act, being declaratory of the intention of the legislature as imperfectly expressed in a previous enactment. The members of building societies have had conferred upon them a summary remedy by way of arbitration in case of dispute with the society, and doubts arose as to the extent of this power in consequence of many members of such societies being also mortgagors of their property to the societies of which they are respectively members. The present enactment restricts the right of reference to arbitration to disputes between the society and members in the capacity of members, leaving questions between mortgagors and mortgagees to be disposed of in the same way as in the case of mortgagees made to private persons.

SUMMARY JURISDICTION ACT.

This Act repeals parts of over one hundred and forty Acts of Parliament specified in the schedule, the dates extending from 3rd William and Mary to 45th and 46th Victoria, and the repeals in some cases being of parts of several sections, in others of whole sections. Truly non-professional men have some excuse for saying that the law is bewildering. The Act also repeals a number of obsolete punishments, and restricts the punishment on summary conviction to imprisonment with or without hard labour in case of the non-payment of fines, &c. It also extends to sums certified by a district auditor the existing remedy for recovery of poor rates. The time for a general consolidation of the law has not yet come, nor is it within sight; but the time will come when the law will be simplified, all obsolete statutes repealed, and the actual law will be found in a clear statute on each branch of the whole subject. The process which has been applied to the law relating to bills of exchange will have to be applied all round before outsiders can congratulate lawyers on the contents of the Statute Book.

PROSECUTION OF OFFENCES ACT.

By this Act the duties of Director of Public Prosecutions, under the Prosecution of Offences Act, 1879, are directed to be performed by the solicitor to the Treasury for the time being. Whether this change will remove the outcry which has, to some extent unjustly, been made against the conduct of the business of the office in question can only be determined by actual experience. Certainly the anticipations with which the former Act was hailed have not been fully realised.

REVENUE ACT.

By this Act power is granted to the Commissioners of Inland Revenue to grant licences to railway companies to sell tobacco and snuff in carriages on their respective lines. The licence duty in respect of each carriage so licensed will be 5s. per annum, and all the enactments in respect of licensed premises will apply to each carriage so licensed. Other regulations as to the assessment of taxes in parishes, and as to the management of taxation are also contained in the Act.

NEW PARISHES ACT.

The full title of this Act is the New Parishes and Church Building Acts Amendment Act, 1884. This title sufficiently explains the general nature of the Act; but it contains one provision which is worthy of more special notice. Where under the New Parishes Acts, or any of them, a district has been constituted, but a church has not been provided for or allotted to such district, power is given to the Ecclesiastical Commissioners, with the consent of the bishop of the diocese, to submit to Her Majesty in Council a scheme for the dissolution of such district; and in case of its dissolution, any endowment which may have been provided is to be returned to the donor or respective donors.

MATRIMONIAL CAUSES ACT.

This Act abolishes the punishment of imprisonment in case of disobedience to a decree for restitution of conjugal rights, and substitutes the much more rational power to order periodical payments of money by the disobedient one to his or her neglected partner. We can scarcely imagine that obedience to such a decree could ever lead to the enjoyment of domestic happiness; on the contrary, it is notorious that the power to commit, which is now abolished, has been used principally as a method of securing a liberal allowance as the only means of escaping imprisonment.

MUNICIPAL ELECTIONS (CORRUPT AND ILLEGAL PRACTICES ACT) ACT.

Those who take an active part in municipal affairs will learn the effect of this Act through their respective political agencies; and to non-politicians, the subject would not be sufficiently interesting to warrant the occupation of space with an epitome, which, in any event, the exigencies of our limits would compel us to make too brief. We must therefore pass this (the most important Act passed during the session) with a simple notice that it is now in operation, its commencement having been fixed for October 1, 1884.

INTESTATE ESTATES ACT.

The title of this Act is a little broader than the contents of the Act itself. It does not abolish the law of primogeniture, as an ardent advocate of that alteration may have fondly deemed; but it regulates the practice in case of an intestate dying without heirs or next of kin, and his real and personal estates passing to the Crown.

DISUSED BURIAL GROUNDS ACT.

This Act prohibits the erection upon any burial ground which has been closed by an order in council of any buildings, except for the purpose of enlarging an existing place of worship, with a saving clause in respect of buildings for which a faculty might have been obtained before the passing of the Act.

POST OFFICE (PROTECTION) ACT.

This Act contains some new penalties for the senseless practice of dropping into post-office letter-boxes any dangerous substances, or doing or attempting to do anything likely to injure the box or its contents. It also enacts that any person who does any of the following things shall be liable, on summary conviction, to a fine not exceeding 10l., and on conviction on indictment to imprisonment with or without hard labour for a period not exceeding twelve months. The following are the prohibited actions: Enclosing any explosive substance, any dangerous substance, any filth, any noxious or deleterious substance, any sharp instrument not properly protected, any living creature which is either noxious or likely to injure other postal packets in course of conveyance, or an officer of the post-office, or any article or thing whatsoever which is likely to injure either other postal packets in course of conveyance or an officer of the post-office. Enclosing any indecent or obscene print, painting, photograph, or other indecent or obscene articles; or sending any packet having thereon or on the cover thereof any words, marks, or designs of an indecent, obscene, or grossly-offensive character. The Act also contains various other regulations as to offences against the post-offices by officers thereof, or by members of the general public, including punishments for forging telegrams, and improperly divulging the contents of telegrams.

THE WORD "MICROBE."—In a paper read by M. Charles Sédillot, of Strasburg, in February, 1878, on the application of M. Pasteur's discoveries to surgery, the word was used for the first time. He suggested microbe (from *mikros* and *bios*). In replying to M. Sédillot, M. Pasteur used the new word twice; and the day afterwards it had been adopted by scientific men, then taken up by the general public. M. de Parville, writing on the subject in the *Journal des Débats*, says he was present at the birth of the word, and that it came into existence "in the hall of the Academy of Sciences, one Monday in February, at half-past four in the afternoon, just as it was getting dark."—*San. News*.

CORK BRICKS.—According to *Annales industrielles*, cork bricks, which are now being employed for various purposes, such as for coating steam-boilers and ice-cellar, and for many other purposes, are thus made:—The cork is freed from woody particles and other impurities by a winnowing process; the wind from the ventilator throws the cork into a second machine, where it is cut to pieces, and is thence drawn up in buckets and ejected into a mill, where it is ground to an impalpable powder, which is then kneaded up with a suitable cement and pressed into bricks. The cork bricks are first dried in the air, and afterwards by means of artificial heat. They are hard and not liable to decomposition, and keep off moisture, heat, cold, and sound.

CHEMISTS AND DRUGGISTS' TRADE ASSOCIATION OF GREAT BRITAIN.

A MEETING of the Executive Committee was held at Birmingham on November 6, Mr. John Harrison (Sunderland), President, in the chair; Mr. W. G. Cross (Shrewsbury), Vice-President. Also present:—Messrs. Andrews (London), Arblaster (Birmingham), Barclay (Birmingham), Bell (Hull), Chapman (Scarborough), Churchill (Birmingham), Davis (Leamington), Hampson (London), Jervis (Sheffield), Laird (Edinburgh), Parker (Nottingham), and the Solicitor of the Association.

The minutes of the previous meeting of the Executive Committee were read and confirmed.

Messrs. Holdsworth, Southall, Williams, and Yewdall regretted their inability to attend.

The following committees were appointed for the ensuing year:—General Purposes, Law, Parliamentary, and Finance. The following reappointments were made:—Mr. Henry Glaisyer, solicitor to the Association; Mr. W. F. Haydon, secretary; Mr. Alfred Wright, assistant secretary; Professor Attfield, analytical referee; Messrs. Lloyds, Barnett, and Bosanquet, bankers; Messrs. Laundry & Co., auditors.

Some considerable discussion took place as to the practice recently introduced by the Registrar of Trade-marks of accepting as trade-marks common words in block type, when it was moved by Mr. BARCLAY, seconded by Mr. DAVIS—

That the Secretary be instructed, on the issue of each number of the *Trade-marks Journal*, to print extracts therefrom of all trade-marks proposed to be registered under the Trade-marks Act, 1883, in classes 1, 2, and 3, and to forward a copy of the same to each member of the Executive Committee, and request them to point out to him any proposed marks that would, in their opinion, if registered, be detrimental to the interests of the trade.

Mr. HAMPSON inquired what steps would be taken in the event of a member of the Executive deeming any proposed mark objectionable.

Mr. BARCLAY said that the Urgency Committee would deal with such cases, and communicate with the Registrar if necessary.

Mr. HAMPSON said that he thought it would be unwise to relegate such power to the Urgency Committee, and he would therefore move as an amendment—

That in the event of objection being taken by a member or members of the Executive to any proposed mark when advertised in the *Trade-marks Journal*, the Secretary be instructed to submit the objection to the Executive, and not to the Urgency Committee.

He adopted that course because he thought it was unwise that any sub-committee should communicate with a Government official, and probably thereby pledge the Association; he thought such questions could be dealt with very much better by the Executive itself.

The amendment was seconded by Mr. Parker, and, on being put to the meeting, three voted for and eight against it. The resolution was then put and carried *nem. con.*

It was moved by the VICE-PRESIDENT, seconded by Mr. JERVIS, and unanimously resolved:—

That the following be appointed Local Secretaries to the Association for the ensuing year:—

ENGLAND.

Adams, Hugh, 74 Meadow Street, Weston-super-Mare
Allenby, H., St. Albans
Allkins, T. B., Market Street, Tamworth
Anthony, J. L., High Street, Bedford
Arblaster, C. J., New Street, Birmingham
Amfield, J. C., Ashton-under-Lyne
Arnold, S., 42 Mount Ephraim, Tunbridge Wells
Ashton, W., 77 Lord Street, Southport
Atmore, G., 48 High Street, Lynn
Averill, J., Market Square, Stafford
Avison, J., 13 King Street, Dukinfield

Local Secretaries—cont.

Badger, A., Eldon Street, Barnsley
Bagnall, W. H., 7 New Street, Lancaster
Ball, G. V., 23 Parsons Street, Banbury
Barclay, Thomas, 17 Bull Street, Birmingham
Baruaby, H., Star Hill, Rochester
Barritt & Dix, High Street, Croydon
Bates, W. I., 116 Mill Street, Macclesfield
Bates, J., Wellington
Baxter, G., Foregate Street, Chester
Bell, C. B., 6 Spring Bank, Hull
Bentley, J. N., 30 Bridge Street, Heywood
Bentley, W. J., High Road, Tottenham
Bienvenu, J., 24 St. Mary Street, Southampton
Bing, E., 41 St. George's Street, Canterbury
Bingley, J., 91 Bailiff Street, Northampton
Blacklock & Co., Bournemouth
Blackshaw, T., 35 Market Place, Burslem
Blaud, T. F., 75 High Street, Stourbridge
Blayney, J. J., Dearden Gate, Haslingden
Borman, R. W., 67 Freeman Street, Great Grimsby
Bramley, S., Cleckheaton
Bristed, J., High Street, Margate
Brothers & Son, 107 High Street, Ashford
Buck, T., East Street, Middlesbrough
Bulgin, W., New Road, Gravesend
Burkinshaw, W. T., Belper
Butler, J., Bridge Street, Tipton
Cadd, W., High Street, Bideford
Carlton, W. P., High Street, Newcastle
Cartwright, W., Iron Market, Newcastle, Staff.
Chapman, H., Newborough Street, Scarborough
Churchill, W. J., New Street, Birmingham
Clark, W., West Street, Gateshead
Clarke, W., High Street, Stockton-on-Tees
Clarke, Bleasdale & Co., York
Clarkson, T., 41 Brunswick Street, West Hartlepool
Cold, F., 51 Duke Street, Devonport
Cole, F. A., 33 St. Botolph's Street, Colchester
Cossey, J. D., 21 Tavern Street, Ipswich
Cotterell, W. B., Dover
Coupand, J., Harrogate
Cox, John, 36 Watergate, Grantham
Crofts, H. C., High Street, Chatham
Cross, W. G., Mardol, Shrewsbury
Daniell, S., 30 Harbour Street, Ramsgate
Davis, H., Warwick Street, Leamington
Daymond, S., 8 Edgecumbe Street, Stonchouse
Dearden, W., Keighley
Dobinson, T., Newgate Street, Bishop Auckland
Doble, H. T., 48 Brook Street, Tavistock
Dutton, F., Town Hall Square, Bolton
Earnshaw, B. K., Eastbourne
Earp, W., Leigh, Lanes.
Elgey, J., Great Driffield
Elkington, C., Rugby
Ellinor, George, Spital Hill, Sheffield
Farnworth, W., King William Street, Blackburn
Faulkner, H., Newport, Mon.
Fell, Robert, King Street, Huddersfield
Fennings, A., West Cowes
Field, H. E., Oxton Road, Birkenhead
Field, W. C., Taunton
Fleming & Son, Queen Square, Wolverhampton
Fowler, W. R., Queen Street, Portsea
France, J., 18 Church Street, Rotherham
Frost, G., Corn Market, Derby
Furmston, S. C., High Wycombe
Giles, J. J., Guildhall Street, Folkestone
Gittoes, S. J., 54 High Street, Wednesbury
Glaisyer, T., 11 North Street, Brighton
Goode, C., 9 High Street, Congleton
Green, J., Lower Street, Deal
Green, R., 23 Hare Street, Woolwich
Groves, T. B., St. Mary Street, Weymouth
Hallam, F., 22 High Street, Burton-on-Trent
Hargraves, H. L., Oldham
Harrison, John, 33 Bridge Street, Sunderland
Hickman & Metcalf, Market Place, Newbury
Hillier, W. Henry, 7 Bridge Street, Bath
Hitchin, R., 42 St. James Street, Burnley
Hogg, J. F., 5 Tyne Street, North Shields
Holdsworth, T. W., Steelhouse Lane, Birmingham

Local Secretaries—*cont.*

Hole & Hollingsworth, Market Place, Mansfield
 Hollier, E., Market Place, Dudley
 Hubbard & Son, Walsall
 Hughes, E., 17 Market Place, Altrincham
 Hunter, W. F. & H., 5 and 7 Roper Street, Whitehaven

Jackson, T., Fazackerley Street, Chorley
 James, R., North Bar Street, Beverley
 Jeffrey & Son, Pitville, Cheltenham
 Jervis, William, Fulwood Road, Broomhill, Sheffield
 Jessop, J., Corn Market, Halifax
 Job, T., King's Road, Southsea
 Job & Carr, Wakefield

Kemp, R., Market Place, Alford
 Kenyon, James, Oak Street, Accrington
 Key, H., Agincourt Court, Monmouth

Lee, W., Northwich
 Lloyd, J., Piecadilly, Hanley
 Lowe, A., Chesterfield
 Lunby, A., Tranmere

McNeil, J. N., Victoria Street, Crewe
 Maltby, J., High Street, Lincoln
 Mapson, J., 31 High Street, Bilston
 March, F., Stamford
 March, W., Market Place, Newark-on-Trent
 Marshall, G., Devonshire Buildings, Runcorn
 Martin, E. W., 28 High Street, Guildford
 Martin, T., High Street, Cliffe, Lewes
 Mason, A., Yorkshire Street, Rochdale
 Mason, P. H., High Street, Gosport
 Mays, A., Market Place, South Shields
 Metcalfe, W., High Street, Chelmsford
 Morgan & Lawley, 10 Vicar Street, Kidderminster
 Mumbray, R. G., Richmond, Surrey
 Newby, R. J., Lemon Street, Truro
 Nickson, J., 56 Broad Street, Ludlow

Oldfield, F., Eccles, Lancs.
 Oldham, W., 10 Market Place, Wisbech
 Orchard, E. J., Blue Boar Row, Salisbury

Paget, J., Churchgate, Loughborough
 Parker, W. H., Alfreton Road, Nottingham
 Pasmore, G., High Street, Southernhay, Exeter
 Peel, H., Market Place, Dewsbury
 Perkins, J. J., Tamworth Street, Lichfield
 Phillips, J., 58 Wallgate, Wigan
 Pilley & Son, 9 Strait Bargate, Boston
 Pitman, J., Redcliffe Hill, Bristol
 Pollard, H. H., High Street, Ryde
 Poll, W. S., Regent Road, Great Yarmouth
 Potts, C., Granby Street, Ilkeston
 Pratt, J., 80 East Street, Chichester
 Prince, A. G., Market Place, Longton
 Prior, G. T., 32 Broad Street, Oxford
 Proctor, B. S., 11 Grey Street, Newcastle-on-Tyne
 Prosser, D., Sheerness

Ralph, R., High Town, Hereford
 Redfern, Tom, King Street, Penrith
 Richardson, J., Central Beach, Blackpool
 Robinson, J., Northgate, Darlington
 Rose, J. D., Jarrow-on-Tyne
 Rossiter, F., George Street, Hastings
 Roulston, B. W., Aire Street, Goolse
 Rowcroft, A. E., 68 Week Street, Maidstone
 Sale, T. J., Lowestoft
 Sarsfield, W., Market Place, Durham
 Saunders, G. J., The Cross, Oswestry
 Severs, J., Kendal
 Shackleton, G. W., 61 Frogmore Street, Abergavenny
 Shadford & Co., Market Place, Spalding
 Shakerley, Benjamin, 25 Market Place, Penzance
 Sharples, G., Fishergate, Preston
 Shaw, H. W., Market Place, Doncaster
 Sherlock, T., St. Helens
 Silson, R. W., Church Street, Manningham, Bradford
 Shipson, A., Stalybridge
 Smith, E., Strand, Torquay
 Southall, William, 17 Bull Street, Birmingham
 Spencer, R., High Street, West Bromwich
 Spouncer & Sons, Silver Street, Gainsborough
 Stafford, W., Northgate Street, Gloucester
 Stanswood, J., Commercial Road, Landport
 Steel, T., Duke Street, Barrow-in-Furness

Local Secretaries—*cont.*

Sturton & Son, Peterborough
 Summers, M. C., Sleaford
 Symes, Charles, 14 Hardman Street, Liverpool
 Symonds, W., 26 Joy Street, Barnstaple

Teat, T., Waltham, Leicester
 Thomas, H., South Colonnade, St. Leonards
 Thompson, A., English Street, Carlisle
 Thompson, J., High Street, Knaresborough
 Throssell, J., Fitzroy Street, Cambridge
 Tuttou, Lower Hillgate, Stockport

Virgo, Charles, The Foregate, Worcester

Walker, George, Coventry
 Webster, G., Church Street, St. Helen's
 Welch, C., Sussex Place, Reading
 Welberry, G., Bridge Street, East Retford
 Whaley, Edward, Market Place, Kingston-on-Thames
 Wild, J., Clarendon Place, Hyde
 Williams, F. P., 257 Oldham Road, Manchester
 Wilkinson, C., Darlaston
 Willmot, J. P., Portland Place, Plymouth
 Wilson, C. F., 287 Liverpool Road, Stoke-on-Trent
 Wood, R., Windor
 Woodward, J. L., High Street, Bridgewater
 Wootton, P., Luton, Beds.
 Wright, W., 27 Wolborough Street, Newton Abbot
 Yewdall, E., Leeds
 Youngman, E., Bury St. Edmunds
 Young, J. R., Warrington
 Young, J., Beast Fair, Pontefract

WALES.

Alewood, E., Castle Square, Swansea
 Brigstocke, J., 25 King Street, Carmarthen
 Daniel, W. L., 64 High Street, Merthyr Tydvil
 Davies, D. J., 8 Great Darkgate Street, Aberystwith
 Evans, J., Llanelly
 Jones, Owen, Llanrwst
 Rees, J., 42 High Street, Cardigan
 Roberts, M., High Street, Bangor
 Thomas, W. J., 10 Commercial Place, Aberdare
 Williams, E., 10 Wrexham Street, Mold
 Williams, T., 11 Butc Street, Cardiff

SCOTLAND.

Allan, W., 90 High Street, Dumfries
 Blair, R. P., South Methven Street, Perth
 Borthwick, A. J., Market Place, Selkirk
 Craig, John, High Street, Hawick
 Ettles, John, 26 High Street, Elgin
 Kerr, Charles, 56 Nethergate, Dundee
 McMillan, J., Great Western Road, Glasgow
 MacRitchie, David, High Street, Inverness
 Moore, W. J., Murray Place, Stirling
 Paterson, James, 133 Gallowgate, Aberdeen

It was moved by Mr. BARCLAY, seconded by Mr. ARBLASTER, and unanimously resolved:—

That the Council of the Pharmaceutical Society be requested to receive a deputation from this Association to confer with them as to the expediency, or otherwise, of further pharmaceutical legislation.

It was subsequently decided that, in the event of the Council of the Pharmaceutical Society being willing to receive the deputation, it should consist of the officers of the Association, together with Messrs. Barclay, Bell, Maltby, Laird, Parker, and the Secretary.

The SECRETARY said that he had recently reported to the Registrar of the Pharmaceutical Society a case of infringement of the 15th section of the Pharmacy Act, in which scheduled a poison had been sold by an unregistered trader, the same being fully labelled, so that the Association had no power to commence proceedings for the recovery of a penalty; that the solicitors of the Pharmaceutical Society had, however, acting under the instruction of the Council of that Society, commenced an action against the offenders, and that the Assistant Secretary would, if necessary, give evidence in support of that action.

Several letters were read from members of the Association, and the Secretary was instructed as to the manner in which he should deal with the same.

CHEMICAL SOCIETY.

November 6.

Dr. PERKIN, F.R.S., President, in the chair.

It was announced that a ballot for the election of fellows would take place at the next meeting of the Society (November 20).

The following papers were read :—

"On the Action of Aldehydes and Ammonia upon Benzil" (continued), by F. R. Japp and S. C. Hooker. In previous papers two general reactions have been studied relating to the joint action of aldehydes and ammonia upon similar bodies. In addition, a third totally distinct reaction occurs, which is investigated in the present paper. The authors have studied the action of salicylaldehyde and ammonia upon benzil; a condensation product, $C_{22}H_{16}N_2O_4$, was obtained, which proved to be dibenzoyldihydroxystilbenediamine. By the action of dilute hydrochloric acid, the hydrochloride of a new base, $C_{14}H_{16}N_2O_2$, was formed; its platinum salt, picrate, sulphate, diacetyl derivative, &c., were prepared and examined. The authors have also studied the action of furfuraldehyde and ammonia upon benzil.

"Isomeric Modifications of Sodium Sulphate," by S. U. Pickering. The author has determined the heat of dissolution of effloresced sodium sulphate heated to various temperatures. He concludes that there are two modifications—one formed by not heating above 150° , the other being produced at temperatures from 150° to the fusing point of the salt.

"On some Vanadates of the Amines," by G. H. Bailey. The author has prepared and studied a considerable number of these bodies, and has compared them with the corresponding vanadates of the alkalis.

"Contributions to our Knowledge of Aceto-Acetic Ether," Part I., by J. W. James.

"On Magnesium Hydrosulphide Solution and its Use in Chémico-legal Cases as a Source of Hydrogen Sulphide," by E. Divers and T. Shimidzu. The authors prepare this solution by passing ordinary hydrogen sulphide into a flask containing magnesia suspended in water. By heating the solution to 60° a steady stream of hydrogen sulphide, free from hydrogen and from hydrogen arsenide, is obtained.

"On the Origin of Calcium Thiosulphate: an Emendatory Note to a Paper on Calcium Hydrosulphide," by E. Divers. The author concludes that there is essentially only one method of forming the thiosulphate, *i.e.* by the union of sulphur with calcium sulphite.

November 20.

Dr. PERKIN, F.R.S., in the chair.

The following gentlemen were elected fellows :—F. Broughton, F. J. Down, L. Ehrmann, F. G. Holmes, J. Hulme, C. Thompson, and W. F. Wyley.

The following papers were read :—

"On Some New Paraffins," by Khan B. B. Sobrabji. The author has prepared cetane boiling at 278° , dicetyl melting at 70° , ethylcetyl and dipetyl.

"On Additive and Condensation Compounds of Diketones with Ketones," by F. R. Japp and N. H. J. Miller. The authors have studied the action of potash of various strengths on mixtures of phenanthraquinone and acetone. Additive compounds were obtained containing one molecule of the first substance to two of acetone, and another containing two molecules of phenanthraquinone to one of acetone. Condensation compounds were formed from the above additive compounds by the abstraction of the elements of water. The authors have also studied the action of potash upon mixtures of benzil with acetone and with acetophenone respectively, and have obtained acetonebenzil and acetophenonebenzil.

"On the Vapour Pressure of Acetic Acid, and on a New Method of Determining the Vapour Pressures of Liquids," by W. Ramsay and Sydney Young. The authors have used a species of still into which a thermometer dips, the bulb of which is covered with cotton wool moistened with the liquid. On heating the liquid evaporates from the cotton

wool without ebullition. Results agree with those obtained in the ordinary way. Perfectly concordant and regular results have been obtained with acetic acid.

"On the Action of the Halogens on the Salts of Trimethylsulphine," by L. Dobbin and Orme Masson. The authors conclude that all the haloid salts of trimethylsulphine combine directly with chlorine, bromine, iodine, and iodine monochloride. In no case is one halogen replaced by the other. The authors have partly investigated the action of the halogens on trimethylsulphine sulphate.

"Note on the Heats of Dissolution of the Sulphates of Potassium and Lithium," by S. U. Pickering. These salts do not seem to form isomeric modifications such as exist in the case of sodium sulphate.

"On the Application of Iron Sulphate in Agriculture, and its Value as a Plant Food," by A. B. Griffiths. The author finds that $\frac{1}{2}$ cwt. of sulphate of iron per acre increased the yield of beans from 28 bushels to 44 bushels, of turnips from 13 tons to $16\frac{1}{2}$ tons, but little effect was produced on cereals.

"Notes on the Chemical Alterations in Green Fodder during its Conversion into Ensilage," by C. Richardson. The author confirms the results obtained by Kinch and Kellner, that a considerable increase in the non-albumenoid nitrogen takes place in the conversion; no such change occurs during the ordinary drying of fodder. The author used maize in his experiments.

"On the Decomposition of Silver Fulminate by Hydrochloric Acid," by E. Divers and Michitada Kowakita. The authors have studied the action of dilute and strong hydrochloric acid on this salt. With dilute acid the principal products are hydroxyammonium chloride and formic acid; if the acid is strong, much ammonium chloride is produced. A small quantity of hydrocyanic acid is always formed. They could not obtain any oxalic acid by decomposing mercury fulminate with hydrogen sulphide in ether. They have also studied the action of hydrochloric acid on fulminates.

December 4.

Dr. PERKIN, President, in the chair.

The following papers were read :—

"On Calorimetric Determinations of Magnesium Sulphate," by S. U. Pickering. The author finds that when the ordinary heptahydrated salt is heated to 100 to 130° it retains about $\frac{1}{15}$ th molecule of water. This excess of $\frac{1}{15}$ th may be expelled by heating to 150° to 160° , but if this temperature be exceeded some anhydrous salt is formed. The numbers obtained with the monohydrated salt were 12,131 cal.; with the anhydrous salt, 20,765 cal.

"On Condensation Compounds of Benzil with Ethylalcohol," by Miss M. E. Owens and Dr. F. R. Japp. By the protracted action of very dilute alcoholic potash upon benzil in the cold the authors have prepared in large quantity a body $C_{30}H_{24}O_4$, fusing 200° to 201° , and crystallising from alcohol with a molecule of alcohol of crystallisation. No acetyl derivative could be prepared. A second condensation product, $C_{46}H_{34}O_4$, fusing at 232° , was also obtained.

"Note on the Solubility of Certain Salts in Fused Nitrate of Soda," by F. B. Guthrie. The author has experimented with the sulphates, chromates, and carbonates of barium, strontium, calcium, and lead.

"On Certain Derivatives of Isodinaphthyl," by A. Staub and Watson Smith. The authors have endeavoured by gentle oxidation of this body to form the corresponding naphthoic acid. Cold, strong nitric acid, however, produces a tetra-nitro body; dilute nitric acid in sealed tubes formed phthalic acid; permanganate gave a similar result. Chromic acid in glacial acetic acid produced isodinaphthyl quinone, a yellow amorphous powder melting 250° to 260° .

"I MUST caution you," said the physician, "against drinking wine."

"But I drink very little," remonstrated the sick man.

"That may be, but you must leave off altogether. Wine, nowadays, is so adulterated with drugs and chemicals that it is unfit for human consumption."

"What would you advise me to take?"

The doctor then wrote out a \$2.50 prescription for drugs and chemicals.

PHARMACY IN AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

MELBOURNE, VICTORIA, October 14.

THE SALE OF OPIUM BY THE CHINESE.

I THINK I have mentioned in my former letters that attention has been recently directed to the great increase in the consumption of opium by Europeans who frequent what is known as the Chinese quarter, and this has assumed such alarming proportions that it has forced itself on the notice of the Government. There is no law in operation in the colony that deals with the evil, and the Government have, therefore, fallen back on the Pharmacy Board, and requested that body to undertake the prosecution of the vendors of opium under the Act regulating the sale of poisons, the third section of which makes it illegal for any person other than a legally-qualified medical practitioner or a registered pharmaceutical chemist to sell any poison in the schedule to the Act; and there is no doubt that the Poisons Act gives sufficient power to restrict the sale of opium by Chinese. At the instance of the Government the Pharmacy Board have, therefore, recently prosecuted a number of Chinese opium-sellers in all the principal centres of population, and the magistrates have taken a very different view of the cases to what they did this time last year, when a large number of similar prosecutions were instituted. On that occasion fines of 5s. and 12s. 6d. costs were inflicted, but in the cases that have just been tried 20l. penalties and 5l. 5s. costs have been given, with the alternative of three months' imprisonment.

The fining of some twenty-five persons in this amount has created quite a stir in the Chinese camps, and, it is expected, will have the effect of greatly decreasing the sale of opium to Europeans. In a recent communication to the Government the Board have pointed out the advisability of fresh legislation to deal more effectually with the sale of opium by the Chinese, and have forwarded their suggestions in this respect for the consideration of the Cabinet. In addition to this, no more certificates to sell opium will be granted to the Chinese when those already current expire.

TRADE-MARK RIGHTS.

An important decision under the Trade-mark Statute has recently been given in the Supreme Court, where the American Hop Bitters Company sought for an injunction to restrain Thomas Luke from using the words "Hop Bitters."

The plaintiffs were a company trading as a corporation duly incorporated under the laws in force in the State of New York, U.S.A. The company was formed in 1872 to manufacture bitters extracted from hops. It adopted the name "Hop Bitters," and placed the name on its labels. In 1880 the company extensively advertised itself in England, and, as one means of advertising, it offered a prize of 1,000l. for a scullers' race, open to all comers, to be rowed on the Thames. The prize was called the "Hop Bitters Company's Prize." It was won by an Australian oarsman, and that had the effect of introducing the bitters largely into Australia.

The company established an agency in Australia, and the president, Mr. Soule, came here, and, in March, 1881, registered the trade-mark of the company—a sprig of the hop-vine, with the words "Hop Bitters." It was afterwards considered cheaper to manufacture the bitters in Melbourne than to manufacture them in New York and ship them here, and therefore Mr. Van Bergh was despatched here as agent, and has carried on the manufacture of the bitters since March, 1883. The company had advertised its bitters as "American Hop Bitters" and "Hop Bitters," the amount spent in advertising in the Australian Colonies being about 6,000l. a year. Some of the company's placards used the words, "Try

American Hop Bitters," and others had the flag of the United States of America, and it was complained that the defendant had used similar placards as to his bitters. The defendant was Mr. Thomas Luke, of Collins Street West, who carried on business in Collins Street under the name of Luke, Williams & Co. It appeared, however, that the defendant's bitters were sold as if manufactured by a hop bitters company, and there was no such company in existence. The description should have been that the bitters of the defendant were manufactured by Thomas Luke, or by Luke, Williams & Co. Luke, Williams & Co. were described as the agents for the colonies, whereas, in fact, they were the manufacturers, and the defendant's bitters were made in Melbourne. On the cases of the defendant were the words, "New York Bitters Company."

In giving his decision the Judge said that, so far as he understood the case, it was reduced to a question whether the plaintiff company had its rights infringed by the defendant styling himself the "New York Hop Bitters Company." The defendant's statement contained two lies, namely, the terms "New York" and "Company," but he was not to consider whether they were lies, but whether the adoption of those names was calculated to deceive persons or the public generally. He thought in this respect the plaintiffs' case had totally failed. The only words common to both were "hop bitters." In one case the company was styled "American," and in the other "New York." The only similarity between the two names was in the use of the words "hop bitters"; but the plaintiffs had not the exclusive ownership to those words. It was merely a description of the article, and amounted to no more than that it was made from hops, and any person might say that. There was nothing in the case, so far as it stood at present, to induce him to grant an injunction against the use of the name. As regarded the labels for the corks, the defendant had ceased to use them.

His Honour said he would refuse the application, but, owing to the defendant's conduct, he would not grant costs.

Motion for injunction refused, without costs.

THE COLLEGE OF PHARMACY.

The 1884 session of the College of Pharmacy is now rapidly drawing to a close, and it is expected that the number of candidates for examination in December will be unusually large. I am glad to say that the Melbourne University have at last agreed to recognise the College as affiliated to that Institution, and the 1885 session will, I hope, see all the University medical students at the College for their pharmacy. The advantage will be mutual: the College will greatly increase its usefulness, and the medical students will acquire a branch of knowledge in their profession which, up to the present time, has been greatly neglected.

A correspondent from Tasmania informs me that the Dentists' Qualification Bill has not made a very favourable *début* in Parliament. The second reading was assented to, but in committee so many difficulties cropped up that it was eventually postponed to allow a more mature consideration of certain clauses. The main difficulty was as to how far it was possible to incorporate an English Act in a Colonial one.

Extreme quietness prevails in pharmaceutical matters in the other colonies. From New South Wales I have heard of no further progress with the Conference or the proposal to start a journal, and the same state of dulness equally applies to New Zealand and Queensland.

Mr. James Watson, a pharmaceutical chemist of Great Britain, who has for some years past been in Mauritius, is about to settle in Victoria. Mr. Watson was a member of the Board of Examiners in Pharmacy at the Mauritius, and took a leading part in pharmaceutical matters in that island.

Things have been made rather lively for the grocers lately, what with prosecutions for selling vermin-killers, chlorodyne, soothing syrups, &c. Fresh trouble is now in store for them from the Excise Department, who have commenced a number of prosecutions for selling Hop Bitters without having a licence to sell spirits. In the cases already brought forward evidence was given that Hop Bitters contained 9½ per cent. of alcohol by weight and 11½ per cent. by volume. Fines of 25l., with 3l. 13s. 6d. costs, were inflicted.

PHARMACY IN VENEZUELA.

IN recent numbers of the *Pharmaceutische Zeitung* Mr. A. Böhmer has given some history of his experience as an assistant in some of the pharmacies of Venezuela. His first engagement was with a certain Herr Sch., in the city of Bolivar, formerly known as Angostura. The first impression of his new home was not quite favourable. The premises were commodious; but the arrangements were not such as a German pharmacist would be accustomed to. Mr. Böhmer knew Herr Sch. did a varied business, but he hardly expected to find it so mixed up as it actually was. The shop proper was spacious, with four folding doors for the admission of the public; a counter ran the length of the shop, and there were besides two long tables. At the end of one of these was the dispensing department, while the remaining part of it was covered with glasses containing sweetmeats, dried plums, figs, dates, and the like. The other table was covered with combs, toys, cigars, &c. Below, both tables were fitted with drawers wherein pills, pencils, spoons, lozenges, writing-paper, ground maize, candles, essences, pens, linseed, spectacles, senna and other drugs were stored. One side of the shop was occupied by a case of patent medicines, and the other side by a corresponding case, containing elementary treatises, novels, and Bibles. Then, behind all these, elegantly screened from the more public part, was the pharmacy proper, fitted with shelves bearing handsome bottles with enamelled labels. In the middle of this compartment was a stock of wines and beer, while the parts of the wall otherwise unoccupied were decorated with immortelles and trusses. Penetrating still further, he came to the store-room—a dismal hole, with the stock in the utmost confusion, and covered with dirt. The next room Herr Sch. described as the laboratory, and in so describing it he seemed to be speaking in earnest.

Leaving this situation in six months, the writer went to Caracas, the capital of the Republic, and took a situation in the great house of G. Stürup & Co. This firm, and another, Herr Braun & Co., are not only pharmacists, but large wholesale druggists, and import "colossal masses of wares."

It is not to be assumed that all the pharmacies in Venezuela are similar to the one described in Bolivar; but the pure pharmaceutical businesses are rare.

The pharmacist in Venezuela begins his career at about thirteen or fourteen years of age, when he generally knows little beyond reading, writing, and arithmetic. After four years' apprenticeship, he either goes to the Caracas University for two years, or he obtains permission to acquire the required knowledge at home. He has only to pass one examination, which is exclusively *vivâ voce*, and is conducted by seven medical men and one pharmacist. Each examiner tests the candidate for a quarter of an hour, and then writes his estimate on a slip of paper, which he places in an urn. On these reports the candidate is judged. The examination fee is 91 Spanish dollars, or about 14*l.* 10*s.*, of which each examiner receives 1*l.*, and the rest goes into the University exchequer.

For such as have not gone through the University curriculum, a preliminary examination is required in botany, pharmacognosy, and physics, which is, however, of a very primitive nature.

Danes and Germans who can bring certificates of having passed the Preliminary at home are now allowed to proceed to the chief examination.

The examination once passed, the Spanish pharmacists, as a rule, occupy themselves no further with scientific matters. They have one technical journal, the *Boletín de la Sociedad farmacéutica*, which the writer does not seem to esteem highly.

The salary for an examined pharmacist runs as high as 7*l.* 10*s.* a month, with board and lodging, and immunity from taxes. Foreigners receive still better pay. The apprentices receive about 2*l.* 10*s.* a month under like conditions.

There are 19 pharmacies in Caracas, a city of 55,000 inhabitants; 12 in Valencia, with 36,000 inhabitants; 4 in Bolivar, with 10,700 inhabitants. There is no limitation of pharmacies. All the towns of any importance have an aggregate population of 145,300, and in these there are altogether 52 pharmacies. The proprietors of a good many of these are Germans.

The Republic of Venezuela has no national pharmacopœia, but the French Codex is legally binding, although no one troubles himself much about that or any other. A table of maximum doses is also wanting, and the German one is used when occasion requires it. The newest medicines, such as pilocarpin salts, asparagin, physostigmin, &c., are to be had in the pharmacies of Venezuela as readily as in Europe.

The Spanish dispenser, when he starts to prepare a prescription, first of all lights his cigarette. His counter is not generally kept in a clean or orderly style. Prices charged for medicines dispensed are nearly twice the rates allowed in Germany, but certainly not above West-end of London prices. Generally a number replaces the patient's name on the label of directions, and, the doctor not giving full directions himself, these have to be supplied by the dispensers. The pharmacist is not only required to register all prescriptions dispensed, but also to keep the originals for ten years; copies of the same are, however, given to the patients if required. An exception to this rule is in the case of prescriptions by doctors who have not passed their examination in Caracas. Ordinary medicines are often supplied in the first vessel which may happen to be at hand—it may be a beer-bottle, a wine glass, a milk-jug, or anything. Patent medicines are largely prescribed and sold, the great American houses advertising here on a large scale. Tinctures, ointments, syrups, and plasters are generally prepared in the laboratory, but other medicines are mostly obtained from Europe.

With but few exceptions medicines are charged an import duty of 3½ Spanish thalers (1*l.*s.) per 10 kilos. As indicating the actual cost of medicines, magnes. carb. is taken. A case, 35 lbs., costs about 9 Spanish dollars; add 7 dollars for freight and 17 dollars for duty. As illustrating the extent of trade the writer says that the firm of G. Stürup & Co. sold in 1882 391 lbs. of quinine, besides 10,000 bottles of Rigaud's quinine capsules. In retail nothing is sold under half a real (2½*d.*)

There is a Pharmaceutical Society of Venezuela, whose organ has been already mentioned, but in recent times it has been getting weaker, and its dissolution is anticipated. Pharmacy is governed by a Codex, and certain revisors are appointed to visit the pharmacies, but their visitations are very carelessly carried out.

Mr. Böhmer gives a number of instances of curious, dangerous, and, apparently, very ignorant prescribing which he met with during his sojourn in Venezuela, and it appears from his account generally that the public have, after all, to trust more for their safety to the dispenser than to the prescriber.

CHEMISTS' CIRCULARS: PRIZE COMPETITION.

IT will be remembered that in our last issue we offered a prize of two guineas for the best circular "intended for issue with the Christmas accounts." It was to "aim first at extending the sale of what may be called season goods, but should take up also a few leading articles, the demand for which might be increased." "It should not depend for effect on startling type or typographical display, and should not exceed a reasonable length." We hoped that it would "be the means of suggesting new ideas, and of putting fresh life into the businesses of our readers."

In response to our offer we have received thirty circulars, and one not for competition. We cannot say that in quality of style or originality they are quite so excellent as we had hoped. The number of replies is extremely unsatisfactory; we looked for at least a thousand.

All the circulars sent were independently examined by two trained pharmacists. They soon found that the wording of the offer had been very differently understood, and it was thought desirable not to exclude any circular from competition by a too rigid interpretation.

Both judges, without consultation or discussion, assigned the first place to a winter circular, accompanied by a price-list, from Messrs. J. Marson & Son, chemists, Stafford. The second place was given, with scarcely more difficulty, to a circular sent in by Mr. Humphreys, a traveller in the employ of Messrs. Clarke, Bleasdale, Bell & Co., of York.

We therefore award the two guineas to Messrs. Marson, and we send another guinea to Mr. Humphreys.

We will now proceed to describe and comment on the different circulars. It must be distinctly understood that, while we may criticise rather roughly some parts of certain circulars, we by no means condemn them altogether. They go on the old lines, which have the support of long experience, and are not to be left too rashly. The object of our competition is to encourage new experiments.

1. Messrs. J. MARSON & SONS.—The circular proper is printed on a quarto page, plain type, and good paper. What strikes the eye first is the fly-leaf, on which appears a photograph, cabinet size, of "Marson's specialties," arranged in a pyramid. These photographs are executed by an apprentice, and printed in spare moments. Their cost is a fraction under a halfpenny each. These are sent only to the best customers. In circulars sent to others the place of the photograph is taken by labels of some leading specialties. This feature, although worth mentioning, is a little outside the competition, and did not weigh with the judges.

Here is the text of the circular proper:—

We have pleasure in calling your attention to our new illustrated circular, comprising many important novelties and additions, several of which will be found of special value at the present season.

All these preparations are made in our own laboratory, from carefully-selected drugs and chemicals. We are thus enabled to guarantee the purity of the ingredients used in their composition. This is important, as the keen competition which has lately existed in patent medicines and proprietary articles has led to an amount of deception and adulteration of which the public have little idea.

The public naturally recognise the chemist as the first authority on drugs and chemicals as applied to household requirements, and they look to him not only to supply the best and purest drugs, but to keep them constantly informed of all the latest additions to pharmacy, and any new labour-saving or scientific domestic hint that tends to promote domestic economy.

With this view we hand you this circular, and trust it will be found useful for reference, and venture to hope it will lead to an increase of your esteemed orders.

We also beg to call your attention to the accompanying catalogue, containing a more detailed list of our specialties, and more especially to the articles, "A Word on Patent Medicines," and "Hints to Purchasers," &c., &c.

Here follows a list of winter requisites; among others, "balsamic cough mixture, specially prepared for children, free from opium"; "anti-catarthalsmelling-bottle, speedily relieves the distressing symptoms of severe cold in the head"; "Canadian asthma cure"; "camphor pilules, a convenient and portable form of camphor, taken at the commencement of a cold will often ward off an attack"; "penny mustard-plasters"; "solidified glycerine-stick"; "Russian grease, renders boots thoroughly snow and water proof." On the fly-leaf is a very short farce, entitled, "A Sticky Wrinkle from Edward VII.; scene, Marlborough House," intended as a puff oblique of "the Queen's" *bric-a-brac* cement. This idea was suggested by the Chemists and Druggists' Diary. The circular is free from the objectionable "J. M. & S. return thanks for past favours" style. It deals but little in generalities, which are also to be avoided.

The "Word on Patent Medicines" and "Hints to Purchasers" given in the catalogue sent out with the circular are the special features of merit.

The "Word about Patent Medicines" is a short essay dividing them into three sections, the good, middling, and worthless. Only a few are allowed to be good; about half are said to be middling, not doing much harm, and worth about a third of the price paid for them, while they are often made by incompetent people; and the remainder are classed as worthless. "Hints to Purchasers of Patent Medicines." We can best explain these by giving a specimen:—

COCKLE'S PILLS.

We notice these first, as being what they profess to be. They have long enjoyed a deserved reputation, and chemical analysis shows them to be composed of drugs of good quality; but they are absurdly dear. The 1s. 1½d. size contains only thirteen pills.

We have for fifty years prepared, under the unassuming name of FAMILY APERIENT PILLS, an efficient substitute, which many think equal, and some superior, to the costly Patent Pills; and our 1s. box of these contains forty-eight pills. The late Hon. and Rev. A. C. TALBOT recently told us that he never met with any pills that suited him so well; and they are frequently recommended by prominent members of the medical profession.

SCOTT'S ANTIBILIOUS PILLS.

These are very good and very dear, and we find that our PODO-PHYLLIN or LIVER PILLS, at one-third the price, are universally preferred and recommended everywhere. We are constantly sending them to all parts of the Kingdom.

Forty-six other proprietary articles are treated in the same way, including effervescing salines, pain-killers, insect powders, veterinary remedies, perfumes, hair-dyes, and so on. This feature is novel, and is likely to be very effective, though its length causes some loss of force. It was partly suggested by a cutting price-list issued by a firm of tea-dealers offering most 13½d. articles at 9½d., and so on. Other good sections are a short description of "How Pills are Made," "Some Remarks on Tea," and a series of "domestic hints" pasted as insets. These include "How to make a Cup of Tea in Perfection," "Pickle for Hams, Chawls, and Tongues," "Treating Poisoned Dogs," "Giving Medicine to Dogs," and "Cock-roaches." Most of these are familiar to close students of this journal.

2. In Mr. A. HUMPHREY'S circular the idea that seemed most worthy of commendation is the following:—

THE FAMILY STOMACH AND LIVER TONIC. 1s. per bottle.

For indigestion, biliousness, &c.

THE FAMILY TIC MIXTURE. 1s. per bottle.

For neuralgia, faceache, toothache, &c.

THE FAMILY DIARRHOEA MIXTURE. 1s. per bottle.

For bowel complaint, diarrhoea, &c.

THE FAMILY COUGH MIXTURE. 1s. per bottle.

For coughs, bronchitis, asthma, &c.

THE FAMILY PICK-ME-UP. 1s. per bottle.

For headache and depression from overwork of the brain; also for removing the unpleasant consequences experienced at this festive season of the year from "merry nights."

THE FAMILY EMBROCATION. 1s. per bottle.

For rheumatism, sprains, bruises &c. Football players will find this an invaluable companion.

The whole of the above may be obtained, packed neatly in a strong cardboard box (forming a small family medicine-chest), for 6s. The doses of the mixtures are all uniform, and the embrocation is put up in a blue poison-bottle, bearing a striking "caution" label to prevent mistakes.

There is some little doubt as to the wisdom of including the embrocation, but the idea is a good one. The circular has the further merit of dealing with only a few subjects.

From the other circulars we glean a few hints. Messrs. Mortar & Pestle, speaking of the patent-medicine department, explain that by buying very large quantities cutting firms are able to offer articles at low prices. But a stock kept long must deteriorate, and to pay rent and taxes profits must be made somewhere. So that while some things are sold cheap, those the public are less able to judge must bear a large rate of profit. They go on to say:—

We would suggest that if our friends buy any proprietary articles from these houses they should be those which will not deteriorate by keeping a length of time, such as Allen's restorer, Battle's vermin killer, Kay's essence of linseed, celandine, chloralum, Steiner's cyanide paste, Roth's phosphor paste, &c., at the prices offered; but not such goods as tea, wine, &c., on which they must necessarily pay an additional profit.

For such articles, however, that are perishable or partly perishable, by lengthened keeping, as all kinds of pills, powders, saline, fruit-salt, hydrochloric, citrate of magnesia, and nearly all medicines for internal use, we would recommend our clients not to purchase from them, as these all require to be fresh, and not to be kept in stock for a lengthened period. We receive daily from London parcels of these goods, and as we are careful not to buy more than we have a quick sale for, the medicines we supply are always fresh and reliable, and not, as must be the case where they are kept an indefinite length of time, inert, disappointing, and useless.

This suggestion is taking at first sight; but it is never wise to make direct attacks on other tradesmen. The public only care to get the best value for their money, and are confirmed in their belief that the cutter is a benefactor when they find the chemist crying out. Tell them what you can do; do not trouble them with your complaints. No man would think of letting his customers guess that he was in difficulties; why, then, publish it to the world in your circular?

This firm also makes a liberal use of red lines under certain words. This is costly, and gives the page a hysterical look, while it really adds little or nothing to the effect.

Another firm presents compliments, returns thanks, is

gratified at its own success, calls its own charges reasonable, and pitches into low prices. Now the essence of a compliment is the personal feeling it conveys, and what can be the value of a compliment printed by the hundred and sent with a Christmas bill? Success is a private matter, and should not be bragged about. People will soon find it out and help to swell the tide that leads to fortune. The attack on low prices has been dealt with above.

Messrs. Hartshorn & Hoyle call themselves Messrs. H. & H., and thus class themselves with those people in novels who call their wives Mrs. P. and their husbands as Mr. Q. The writers give six reasons why the public should trust them, which are well stated—

1. *Because* they are registered chemists, and have been established twenty years.
2. *Because* they have had large experience and know their business thoroughly.
3. *Because* all prescriptions are dispensed by members of the firm or fully-qualified assistants.
4. *Because* they guarantee the purity of all their drugs and chemicals, all the most important being analysed before being taken into stock.
5. *Because* they charge reasonable prices for all their goods.
6. *Because* they honestly try to do their duty towards the public.

This would be improved by omitting the word "because" in each case.

But they go on to say:—

The necessity for chemists' shops is universally recognised, but it is not so generally known that the vast majority of such shops take under 1,000*l.* a year. Cutting traders profess to do a trade on a 5 per cent. profit; 5 per cent. on 1,000*l.* gives 50*l.*, which would not pay the rent in most cases. This shows the absurdity of the practice [!]

This ends the circular, and a list of specialties commences on the next page. Will the general public think much better of chemists generally, or of Messrs. Hartshorn & Hoyle in particular, on learning that their returns are probably not more than 1,000*l.* a year, and that they must get many times more than 5 per cent. profit in order to make a living? Would not the conclusion be—"I do not see the necessity of having so many chemists; it is convenient to have a shop in the neighbourhood, but if there were only half as many they could afford to sell at a much lower rate?"

T. F. T. says in his circular:—

The public, as a rule, are not judges of the quality of drugs, and, as there are so very many qualities, it is necessary that the purchaser should have unlimited confidence in the seller.

This contains a good idea, but it is not so well put as it might be. There is no need to tell the public that it is, like the law, "a hass," and our customers, as a rule, do not know that there are many qualities of drugs in the market. It would be better to say:—

There are many different qualities of drugs to be had. Senna can be obtained that could be sold at 1*l.* an ounce, and give an enormous profit. But the better qualities, such as ought only to be used in medicine, are costly. It needs considerable study and care to secure the best drugs, and they cannot, of course, be sold at such low rates.

S. & T. say:—

The difference between the pure and the adulterated or inert drug often means life or death in a family, so that it is better not to risk it, but to buy drugs above suspicion from those who have had special training, in order to ascertain the purity of the articles in which they deal.

This is decidedly "a point." Can we not put it a little better?

The difference between the pure and the inert or adulterated drug may mean the difference between life and death in a family. It is with a deep and constantly-increasing sense of this heavy responsibility that our business is always carried on. To make sure of getting the best drugs needs greater knowledge and care than anyone not a chemist can devote to it.

Jones & Co. say:—

Price is a secondary consideration with regard to drugs, quality being the first essential. But it is just this quality that traders other than qualified chemists are unable to determine. A man may be a first-class grocer and still be dangerously incompetent when he has to deal with

drugs. Many preparations that can hardly be distinguished by their appearance are very different in effect. A mistake in labelling a bottle may be followed by fatal results. The great care and constant supervision of specially-educated men is the best safeguard against this danger.

We have slightly modified some of the expressions.

Two brothers send us a circular each. One of them prints in very large type at the beginning of the circular the word "DON'T," in the middle the word "READ," and at the end the word "THIS." The other, who has taken great pains to make a neat border, prints the four sections of the circular in reverse directions, so that it must be turned round in order to be read. These devices may answer their purpose of getting people to read who would otherwise cast aside, but we do not think they cause a tradesman to be more respected.

A. B., of R., sends in a circular, which has one decided merit. It recommends only four articles. People will not spare time to look through a long circular describing the merits of numbers of articles they do not want. If the chemist could offer bargains of bankrupt stock at less than half-cost it would be different; but, as he must depend on the intrinsic value of his preparations, he had better confine his circular to a few. The most successful advertisers push a single specialty, or at most two. Holloway's pills and ointment, Beecham's pills, Horniman's tea, Pears' soap, Louis velveteens, are all examples. There is a further advantage in this, as it saves cost and labour to turn goods out in large quantities.

Mr. C. Johnson, of Barnsley, sends in a card which is sure to attract attention, though it is of a kind that can be easily overdone. He gives on one side of the card a comic sketch. On the back he prints an advertisement of his pills.

Mr. Holding, of Barnsbury, prints a little book of thirty-two pages, fourteen of which contain a dictionary of the language of flowers.

Messrs. Newbery & Sons send in, not for competition, a striking handbill in Old English style of their cherry tooth paste, from which we quote an epigram on the teeth:—

When Celia went to school, and was a girl,
Her teeth for whiteness might compare with pearl,
But after she the taste of sweetmeats knew,
They turn'd all opals to a perfect blue.
Now Celia takes tobacco, what would let
But last they should converted be to jet!

—*Wit's Recreations.*

We may sum up the leading ideas.

First, avoid generalities; they take up much space, and are not effective.

Second, do not attack other tradesmen; it cannot interest customers.

Third, do not make out that you are ill-used; you have no claim on the pity of the public.

Fourth, do not try to push too many articles at once. Divide and conquer is a very old maxim, which means do not divide your own forces.

Fifth, do not use your initials in place of the personal pronoun.

Sixth, do not be afraid of particulars; give real information. The note on camphor pilules in Messrs. Marson's circular is a good instance.

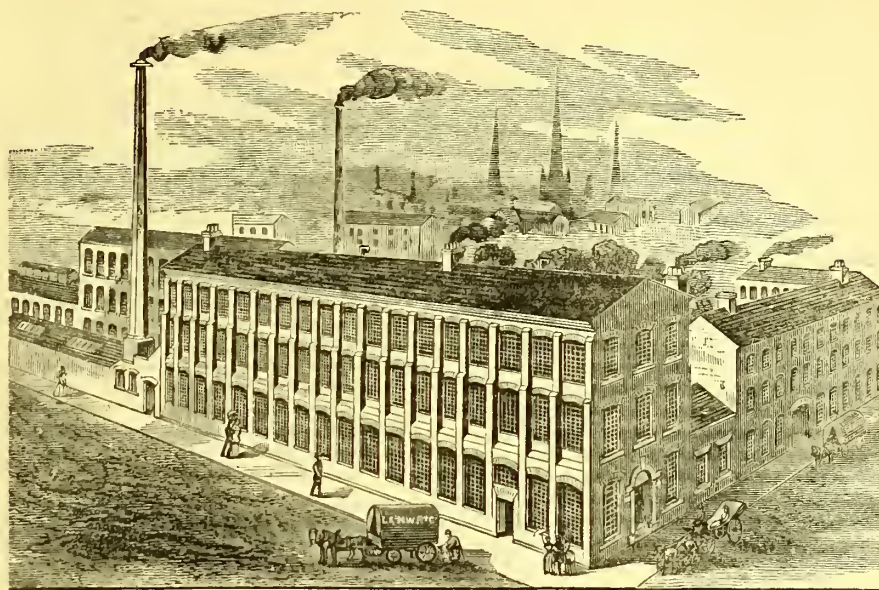
Seventh, use good paper and plain type as a general rule.

Eighth, do not use too many superlatives in describing your preparations; really strong writers need neither superlatives nor italics to enforce their ideas.

Ninth, practice writing circulars; study those that strike you, and find out their secret; do not be satisfied with your first attempt.

NEW YORK pepper manufacturer: "I cannot stand such carelessness. It is positively dishonest to accept wages for work which you do not half do." Clerk: "Why, sir, I have put up over 500 packages of pepper to-day, and I followed your instructions implicitly as to the proper proportions of ground cocoanut shells, &c." "Yes, but the most important of all you forgot." "What was that, sir?" "You did not paste on the labels, 'Warranted Perfectly Pure.'"

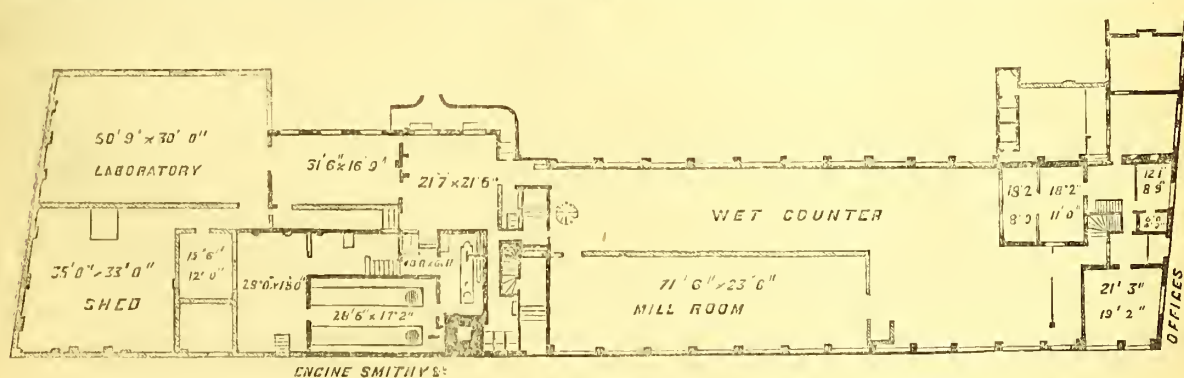
MESSRS. WYLEYS & CO.'S NEW DRUG WAREHOUSE.



UNTIL a few months ago Messrs. Wyleys & Co., wholesale druggists, carried on their business in Coventry in an extensive warehouse situated in the very centre of that ancient city. Recently they have sold the property to the Corporation, and the building is now being demolished to make room for municipal improvements. It is to be presumed that the bargain, whatever it may have been, was not an unsatisfactory one for the firm, but this tide in their affairs did not stop rising at that transaction. Close by the town they were able to purchase a very extensive building, which had been built for and used as an elastic-weaving mill. It is well known that the staple trades of Coventry have for a considerable time remained in a depressed condition, and this particular mill was out of work. The probability is, therefore, that in the matter of property, at any rate, Messrs.

tended by Mr. H. W. Jones, F.C.S., are provided with abundant apparatus, and are conveniently situated out of the way of thoroughfare or interruption. The manufacture of green and other extracts of syrups, the distillation of waters, and all other pharmaceutical operations are continuously carried on. One still is reserved exclusively for the distillation of spirits of nitre. There is a special room for the manufacture of tinctures with hydraulic presses.

The mill-room is particularly noticeable for its extent, and for the work executed there. It contains five pairs of stones, two seed-crushing mills, a mercury-mill, a set of steam pounding-mortars, or "pounces," and a large sifting-apparatus, fitted with numerous sieves, some with 140 meshes to the inch. The firm grind all their own drugs. One pair of stones is kept for cream of tartar, and these are capable of



Wyleys were able to follow out exactly the well-worn free-trade maxim to sell in the dearest and buy in the cheapest market. Naturally a great deal of adaptation was necessary, and the alterations were carried out with a thoroughness and efficiency which have rendered this spacious building one of the most convenient wholesale drug establishments in the country. The entire removal was effected in the month of September, and by working night and day this troublesome business was managed without any cessation in the regular execution of orders.

The building now occupied is 240 feet long and 66 feet broad. The plan annexed shows the general arrangement of the ground floor. The wet counter is 162 feet long, affording convenience for a very large business. The laboratory and analytical department, which are superin-

powdering up to a ton per day. In another half a ton of linseed can be crushed daily. A blacksmith's forge, with steam-lathe and all appliances, occupies a portion of this floor near the engine-house. This is an unusual addition to a drug warehouse, but it was a part of the plant on the premises, and Messrs. Wyleys have found that they could fully utilise it for fittings and repairs.

On the next floor are the dry counter (198 feet long), the patent and soap rooms, a girls' room (where articles are put up), a store-room for special drugs, and a busy room where pearl and gelatine coated pills are manufactured. This is a special feature of Messrs. Wyleys' business. Pfeiderer's machines are used, all being worked by steam. A 10-lb. mass is worked up in about a quarter of an hour, and within another half-hour can be turned out in full rounded pills.

There are several hundred varieties of pills kept in stock, and others are made from private formulae.

The floor above is used for stock, and on the extensive flat roof is an immense quantity of castor-oil bleaching, amounting sometimes to as much as 20 tons.

This business dates from 1790, about which time it emerged from retail life and became established as a wholesale, under the style of "Stott & Wyley." After a time it passed into the hands of John and Francis Wyley and T. Dudley Brown, and was known as "Wyleys & Brown." The present firm, Wyleys & Co., is composed of Francis Wyley, M.R.C.S., L.S.A., W. F. Wyley, F.C.S., and George Walker.

Mr. Francis Wyley, a hearty old gentleman, who still takes an active part in the business, is a Guy's Hospital man; he became a licentiate of the Society of Apothecaries in 1834, and a member of the Royal College of Surgeons in 1835. He never, however, practised medically, but joined his brother, the late Mr. John Wyley, in the Coventry business. He is a Justice of the Peace, has been Mayor of the city, and is the managing director of the Union Bank. As an active politician he is well known, and at the present time is taking a lively interest (practically shown by having contributed 500*l.*) in the restoration of St. Michael's, which is the largest parish church in England, excepting that at Great Yarmouth, which exceeds it, it is said, by only 1 square foot in area.

Mr. W. F. Wyley, son of the late Mr. John Wyley, was educated at Rugby, and, after spending some time at Bloomsbury Square, went on the Continent, and obtained experience in several of the leading chemical firms. Whilst in the establishment of De Haen, of Hanover, chloral hydrate was first produced on the large scale, and he narrates how the workmen were frequently overcome by the fumes, and had to be carried out of the work-rooms in an insensible condition. Mr. Wyley's practical knowledge of the plant of the various large Continental chemical and pharmaceutical houses has been carried into effect in the new premises by the adoption of some of the foreign methods.

Mr. George Walker is well known in connection with the Trade Association. As an active member of the firm he devotes special attention to the London branch house, and to the foreign trade. Locally Mr. Walker is greatly esteemed, and has a high reputation as a public reader; in consequence, he is often called upon to furnish an evening's amusement for the benefit of some institution of the ancient city of Coventry.

HOW TO STUDY MATERIA MEDICA.*

IT is exceedingly interesting, and not a little amusing, to trace the progress of the study of materia medica from ancient times down to the present day. The pages of Culpeper and other medical authorities of the seventeenth century reveal the most extraordinary array of substances for the cure of disease. It was averred that the ashes of certain plants were of different medicinal properties: that the ash of broom, for instance, possessed properties *sui generis*; so also the ash of wormwood. The progress of chemical science has done much to remove these erroneous opinions, but a name is a lasting thing, and this we recognise in supplying carbonate of potash for salt of wormwood, chemistry having taught us that plant-ashes consist mainly of potassium carbonate. The student will, at the outset, find the history of materia medica a fascinating narrative, well told in Paris's "Pharmacologia." Nowadays a scientific rationalism has taken the place of the olden days' ignorant empiricism in the treatment of disease; the tendency now is to limit the number of remedies—yet materia medica can never be stationary. New diseases and new methods of treatment bring new remedies with them, as we well see in the development of Listerism, of preventive medicine, sanitation, &c.

In all branches of study certain preliminary preparations are required; in the present case the student is the better for a previous knowledge of botany and chemistry, with a smattering of physiology and zoology. As the bull's-eye condenser, by converging the rays of light upon an opaque microscopic object, shows more clearly the conformation of

the object, so do these subjects enable the student more acutely to perceive what might otherwise be unseen. Though this knowledge is desirable it is not absolutely necessary, and the student must not allow a lack of knowledge of these subjects to delay his study of materia medica. Begin the study at once, and acquire a knowledge of the other subjects as you go along.

Order of study is of great importance, and the best order is the natural arrangement, as given in Scoresby-Jackson's or Garrod's "Materia Medica." There the drugs are classed according to the natural orders (on De Candolle's system), an arrangement which has at least three advantages:—

1. It enables the student to get up the analogies between the individuals or genera of an order. Thus, in *Atropaceæ*, he finds that henbane and belladonna have many points in common, and thus is led into a more careful study than would be the case in following an alphabetical arrangement.
2. It enables him better to recollect the plants occurring in one natural order, and, as it is important to know the natural family to which a plant belongs, this association of ideas is of the first importance.
3. The student becomes acquainted with the sequence of scientific classification, and thus lays the foundation for future study.

The next essential to a proper order of study is a good collection of specimens. Most of the drugs are found in every retail shop, but there are others which the apprentice and assistant rarely see, hence they have to resort to a museum or form small private collections. In any case, it is important that the student should have the opportunity of handling and examining every drug of the *Pharmacopœia* and the more common unofficial drugs.

Taking the Minor syllabus as our text, we find that our first duty is to recognise the drug. Having aconite root as an example, the student must not content himself with a look at the root and mentally noting "This is aconite." He must assure himself by examination that it corresponds in every particular with the description given in the text-book. Moreover, he should be able to distinguish the drug from others allied to it, not merely because he knows this particular drug, but by becoming acquainted with allied kinds as well. For instance, it is much more satisfactory to say to an examiner, "This is not *Aconitum napellus*: it is *Aconitum ferox*," than to say, "It may be aconite, but it is not the official kind," and there is a sign of carelessness in saying, "It smells like opium, but I never saw it before," when a little more anxiety to know would have enabled us to say, "This is Persian opium."

Next the student has to learn the botanical and zoological names of the plants and animals, and the natural orders to which they belong. This is an easy task. Next the geographical source. Now here the student must not rest contented with a mere mental record of the source. If his geographical knowledge be rusty let him turn up his atlas or habitat map. At first sight it may seem that there is little connection between this search after truth and the dispensing of physic, but we must recollect that at present cultivation of drugs is receiving great attention, and it is important for the student to be able to form his own opinion as to whether a particular locality is suitable for a certain drug. Are the climate and soil similar to those of the original geographical source? If they are not, then we are able to form our opinion as to the value of the drug. The acquirement of this knowledge is not urged because it is likely to be useful on examination day, but because it is useful in itself. Next, the student has to become acquainted with the method of collection, and this requires only careful and conscientious reading. Following this, we must know the preparations into which the drugs enter; and here we find a combination of theory (or reading) and practice more useful than theory alone. Last on the syllabus are the characters and tests. The short cut here is what may seem the longest road at the outset. A single practical application of this chapter is as good as a dozen perusals of what the text-books say thereon. This is a most important part of the chemist and druggist's duties, and we cannot begin too early to put it into practical application. If we do so our answers at the examination-table will reveal a practical basis, and carry weight accordingly. There is yet one department which it is important to know something of,

* Abstract of a lecture delivered to the Edinburgh Chemists' Assistants' and Apprentices' Association, by Mr. John R. Hill, Phar. Chem.

although it is not stated in the syllabus, namely, the isolation of the active constituents of drugs. Everyday there is shown to the pharmacist fresh reason for his knowing how he may free the active from the inert constituents of drugs, so as to furnish a preparation best fitted for administration; therefore we should not close our book until we have learnt whether the proximate principles of the drug are soluble in water, acidulated water, spirit, or other fluid. Also the form in which these principles naturally occur, and if they require special treatment previous to extraction. This knowledge cannot fail to be of value, and a general idea of the manner in which alkaloids are separated will enable you to form an intelligent method for the separation of any alkaloid should you ever be called upon to give one.

Lastly, avoid cram. Remember in the course of your study that examination is not the end in view, but that you are qualifying yourselves for the duties of life. Therefore, be thorough, and lay a good foundation, and you will reap your reward in a growing intelligence, a successful business career, and the respect of your fellow-men.

THE ADULTERATION OF FOOD AND DRUGS.

THE recently-issued Report of the Local Government Board includes the Board's summary of the work done under the Sale of Food and Drugs Act. It is stated that "up to December 31 last the total number of authorities who had availed themselves of the salutary provisions of this important Statue was 265, two additional boroughs having, during the past year, made the requisite appointments.

"**ANALYSES.**—The analyses made during the year number 19,748, or about 200 more than in 1882. As the public continue to avail themselves only to a very small extent of the provisions of the Acts, the setting in motion of the machinery provided for the suppression of adulteration depends mainly upon whether the local authorities choose to exercise their power of procuring samples for analysis. In many of the metropolitan districts, in a large number of important boroughs, and in about half the counties, this power is exercised to an extent that may be considered fairly satisfactory, but on the other hand there are many districts in which nothing at all is done in the matter. This is the case in the majority of the smaller boroughs, and the same may be said of a large proportion of the rural districts.

"The following table shows the number of samples examined during the year, and the percentage of cases in which adulteration was reported:—

	Examined	Adulterated	1882 Percentage Adulterated	1883 Percentage Adulterated
Milk	8,119	1,626	19.6	20.0
Bread	1,041	28	6.4	2.7
Flour	473	2	0.6	0.4
Butter	1,311	236	13.9	18.0
Coffee	1,208	231	18.7	19.1
Sugar	270	—	—	—
Mustard	801	120	17.9	15.0
Pickles (including tinned vegetables)	55	—	2.6	—
Jam	134	5	8.2	3.7
Confectionery	214	—	—	—
Wine	89	4	2.8	4.5
Beer	402	8	5.5	2.0
Spirits	2,174	489	25.3	22.5
Drugs	304	50	14.5	16.4
Other articles	3,063	153	4.8	5.1
Totals	19,748	2,955	15.07	15.04

"It will be observed from this table that the proportion of adulterated samples is rather more than 15 per cent. of those examined. This percentage is about the same as that for the previous year. Of the samples examined by Dr. Hassall in 1854-56, more than one-half were reported against. In 1877, the first year in which the returns under the Act of 1875 were tabulated, the proportion was 19.2. It would seem, therefore, that some progress is being made, though

not very quickly, in reducing the amount of adulteration; and there is no doubt that its character is much less injurious than formerly.

"At the time of Dr. Hassall's examinations the adulterants employed were in a large proportion of cases dangerous to health; now if the public are cheated by the mixture of water with milk or chicory with coffee, they are not poisoned by copper in their pickles or sulphuric acid in their spirits.

"**MILK** continues to be the chief subject of analysis, and the proportion of samples reported against is about one-fifth of the whole number examined. In the metropolis, however, the proportion is still larger, amounting to about 26 per cent. On a former occasion we gave the grounds for a calculation that Londoners are paying between 70,000*l.* and 80,000*l.* a year for water sold under the name of milk, and we are inclined to think that the estimate was by no means excessive. We find that the Public Analyst for Plumstead calculates that in that single district the milkmen receive between 7,000*l.* and 8,000*l.* for water, while the fines for adulteration imposed on them collectively amount to about 100*l.* annually.

"**BUTTERINE.**—The sale of butterine in place of butter seems to be increasing. We do not find in the reports of the analyses any mention of ingredients injurious to health, but inquiries on this point are being made by a committee of the New York Senate with regard to the manufacture of spurious butter in that country, and we shall watch with interest for their report.

"**SPIRITS.**—The adulteration of spirits continues to flourish; it seems to consist, however, in simple dilution with water. The standard fixed by the Act of 1879 allows the sale of gin watered down to 35° below proof, and, therefore, composed of only about 32 per cent. of alcohol and 68 per cent. of water. But a good deal of gin, it appears, is sold containing less than 20 per cent. of alcohol.

"**DRUGS.**—Much more serious, as regards the public health, is the extensive sale of drugs which analysis shows to be not in accordance with the Pharmacopœia. Many of the samples reported against are, no doubt, not adulterated in the ordinary sense of the word, but are merely, from having been originally defective, or having deteriorated through keeping, below the standard strength. The result, however, is that a prescription compounded with such drugs may fail altogether to produce the effect which would have been produced by drugs of proper quality. In other cases, preparations of expensive drugs, such as quinine, are either unduly diluted, so that a prescription of three grains would contain only two grains, or a cheap drug (e.g., cinchonine) is substituted.

"Of the 19,648 samples above referred to all but 252 were obtained by officers appointed under the Act of 1875. Of those purchased privately about one-fourth were found adulterated, of those purchased officially about one-seventh. This difference is, of course, mainly explicable by the fact that a private purchaser's suspicion of adulteration is ordinarily pretty strongly aroused before he bestirs himself to put the Acts into operation on his own account.

"**JUDICIAL DECISIONS.**—Several important decisions of the High Court of Justice have been given during the year under the Sale of Food and Drugs Acts. In *Harris v. May* (L. R. 12, Q. B. D. 97) a general contract for the supply of pure milk was held not to be the specific warranty required by section 25 of the Act 1875, in order to protect the retailer from penalty for selling adulterated milk in the same state as when he purchased it. In *Gage v. Elsey* (L. R. 10, Q. B. D. 518) it was held that section 6 of the Act of 1879 does not affect the operation of section 8 of the principal Act, and that the vendor of any spirits reduced by water below the standard strength would not be guilty of an offence under the last-named Act if he could show that adequate notification of the dilution had been given to the purchaser. In *Chappell v. Anson* (47 J. P. 804) the purchaser of an article of food notified to the seller that it was his intention to have it analysed by the Public Analyst, and offered to 'divide it,' but the seller refused the offer. The justices convicted, but it was contended before the High Court that the purchaser ought, in the words of the Statute, to have offered to 'divide it into three parts.' The Court, however

held that the time had not come to offer to divide it into three parts, because the vendor refused the offer to divide it; and the appeal was accordingly dismissed."

From the abstract of the Analysts' reports we take the following details respecting the samples of "drugs" examined. The list gives the names of all counties in which any drugs were examined, and in these the proportion of samples reported to be adulterated was as follows:—

	Examined	Adulterated
Metropolitan district	57	10
Bedford	9	1
Chester	15	3
Derby	8	5
Devon	1	0
Durham	61	16
Lancaster	18	3
Lincoln	21	0
Middlesex (ex Met.)	26	0
Nottingham	7	2
Somerset	7	0
Stafford	4	1
Suffolk	1	0
Surrey (ex Met.)	2	0
Sussex	8	0
Warwick	2	1
Wiltshire	8	1
Worcester	3	0
Yorkshire, East Riding	11	1
" North Riding	1	0
" West Riding	34	6
Total	304	50

Drugs appear not to have been examined in any Welsh district.

TRADE WITH SPANISH-SPEAKING COUNTRIES.

WHILE the sluggishness of home trade is the stock topic of the day, a glance at the commercial aspect of markets which, though geographically distant, are practically open to us and within easy reach may be interesting. The following sketch is not put forward as matter that is startling in its novelty. It consists of data, taken from the official records of our blue books, and in placing them together we have had in view the interests of those of our readers who may not yet have carried their wares to the markets we shall refer to; and we have placed in juxtaposition such details bearing on the drug and pharmaceutical trades and the various branches of trade immediately allied to them in these markets as we trust will not merely save them the labour of research, but hold out inducements to try fields in most of which other producers, with fewer advantages in essential respects, are now reaping a rich harvest unhampered by the powerful influence of British competition.

We have purposely said most of these markets, as, in alluding to Spain—which perhaps offers fewer trading advantages than the dependencies and independencies to which she has given rise—we must admit that some of our large producers have disregarded the barriers of international misunderstanding, and in spite of obstacles which we have grown accustomed to deem prohibitive, have secured a firm footing, and made their names familiar in the wholesale as well as retail circles of the peninsula. Spaniards may rail at and abuse us as to our actual position in reference to the treaty and the terms we are offering them—the merits or demerits of which it is beyond our present scope to discuss—yet they are commercially justified in making as good a bargain as they can, and the means they employ are purely optional. At the same time, proofs are not wanting that, however they may view English proposals, they hold English goods and English merchants in very high esteem. To a Spaniard the word "English" is a synonym for "genuine," as the words "English merchant" are also synonymous with "integrity" and "punctuality." We have but to open a Spanish newspaper

and glance at the advertisements, or to look at a hoarding in Madrid or any other large town in Spain, and we see everything that is English—and much that is only so in name—thrust conspicuously to the front as the acme of excellence and such goods always command a price in excess of the, article of French or German origin. Spanish tradespeople are as anxious to show that they are in receipt of the newest thing from England as the English caterer for dress is to exhibit the latest Parisian fashion. It is hardly needful to say that the *Pildoras & Ungüento de Holloway*, the *Sal pirética de Lamplough*, the *Sal de fruta de Eno*, and the *Bálsamo de Powell*, as well as a hundred other specialities, are as familiar to the Spanish eye as to the English. The same cannot be said of German goods in this category, nor indeed of French ones. Spaniards and Germans do not seem to coalesce. The figures for the German and British exports bear out the statement fairly; for while in the year 1881, for instance, we sent goods into Spain to the value of 135,242,000 pesetas (= francs), her imports from Germany were only 51,344,000 pesetas.

Pessimists are plentiful, and we are told that the commercial zenith of Spain, like its chivalry, is a thing of the past; on the other hand, figures are hard incontrovertible facts, and these furnish a simple but decisive negative to the assertion. Thus, taking the general trade of Spain for the last few years, we find her imports show a steady, but marked increase. In the year 1877, Spain's imports represented 488,838,000 pesetas, and in 1881, in spite of considerably fallen values, they had risen to 640,096,000 pesetas, or an increase of 151,158,000 pesetas, in a period of four years. The proportion of England's contribution to these importations we have already given, namely, 135,242,000 pesetas, in other words, over 21 per cent. The Spanish exports during the corresponding years were in 1877, 513,843,000 pesetas, and in 1881, 664,399,000 pesetas, showing an increase of 150,556,000 pesetas. It may be added that the imports into Spain of chemical products in the year 1882 were valued at 14,608,000 pesetas.

Spain, however, represents but a fractional portion of the trading ground open to us in the so-called Spanish markets. Mexico, for example, presents an immense field, and for want of healthy competition, her 10,000,000 inhabitants patiently endure drugging by American and German traders, who monopolise her markets; and their only resource seems to be the unending wail of protest against wholesale poisoning which fills the columns of their papers. They are constantly asserting that goods of the very vilest description are foisted on them, and that they cannot get better, simply because better are not available. Our access to Mexico is surely as easy as Germany's. We labour under no disadvantage in that respect. It is true that until recently our treaty relations were not perhaps, of the rosiest, but in August last the commercial treaty between England and Mexico was definitely and satisfactorily arranged and signed, and there is now no existing reason why we should not take our place in a competition, in which our manufacturers would make our success a matter of absolute certainty. Many articles are of course subject to duties, but speaking generally these are not exorbitant; on the other hand, there are not a few articles interesting to our readers absolutely free of any import, among these are: sulphur, tubing of all descriptions, crucibles, phosphate of soda, scientific instruments, scientific and artistic appliances, plants and seeds, vaccine, salt and saltpetre; while on barks, medicinal appliances, and pharmacists' general stock the duty is merely nominal.

The southern portion of Mexico carries to the connecting-link between the two great continents of America, namely, Central America. Here we have a tract of land estimated at 2,500 miles in length, its width at some portions being nearly two hundred miles, and at its narrowest not more than forty miles. It is the intersection at this minimum of contraction of the Isthmus which is now engaging the attention of the great French engineer. Some idea as to the mercantile status of this portion of America, as far as regards the United Kingdom, may be gathered from the fact that in 1880 her imports from Great Britain amounted to 681,000£., and her exports to us during the same year were 1,338,000£. The only points on the Isthmus of any commercial interest are San Salvador, the port for which is La Libertad; Nicaragua, with San Juan its port; Honduras, the port of which is Port Cortez; Guatemala, which has two ports, namely, Izabal and San José; and Costa Rica, for which Punta Arenas is the port.

Whatever may be said of the advantages anticipated from the intersection of the Panama Isthmus, these can only indirectly favour the markets in Central America proper. Steamers from Great Britain and neighbouring ports are almost daily running into New Orleans, which is at the northern point of the Mexican gulf, whose waters wash the whole of the Central American coast; and the ports lying on the north of the Isthmus are as accessible now as they will be when the Panama canal, like that of Suez, is *un fait accompli*; but to the United States of Colombia, the first



territory we reach when we have traversed Central America, the benefits would be simply incalculable, as her greater and more important seaboard lies south of the Isthmus. At present her main trade is transacted through the northerly ports—Colon, Cartagena, Rio Magdalena, and Chagres. If social advancement is any criterion of a country's commercial position, a strong argument would be furnished in favour of the United States of Colombia by the 800 schools which her proud capital, Santa Fé de Bogotá boasts of. Colombia covers an area of some 432,400 English square miles. Except in the larger towns, the population is very limited; it may, however, be regarded now as over 3,000,000.

This republic, though so near the United States of North America, possesses a peculiar sympathy with Great Britain, and a large portion of her trade is transacted with us. America has a portion, by no means insignificant; France, Germany, Belgium, and Spain monopolise the greater part of the residue. Taking the population of Colombia, as a point of comparison with their expenditure with us during one year, we see that in the year 1880 our exports to them represented about 1% per head—in other words, a total of 3,000,000%, or about a third of their total imports. The climate may be said to be an epitome of the world's temperatures; it ranges from the frigid to the torrid, and its productions are therefore almost infinite. The country has been well opened up with railways in its northern portion, and a submarine cable, which runs from Colon to the Antilles, places it in rapid communication with the rest of the world. In the capital, Bogotá, there are about forty chemists and druggists' establishments.

What we have previously said of Spain, with reference to the appreciation in which English goods are held, holds good to a much greater extent in Colombia, and, indeed, throughout the whole of the South American continent. The proof of this may be gathered from a glance at the import tariffs.

These we find are made to bear on English goods less heavily than in Spain, and it will be interesting to the majority of our readers to note that these imports affect not so much the medicines, and the various articles allied to the branch of Pharmacy, as the staple industries of our manufacturing districts. But in spite of the enhanced prices this induces in clothing—to take a single instance—the better classes, who are for the most part more heedless of outlay than the same classes are here, will have them if they are to be had.

The writer remembers a native of Colombia who was on a visit to this country a few years back, whose faith was so firm in English goods that he took back with him to Bogotá a stock of wearing-apparel and other commodities, which, calculating for ordinary wear and tear, would be sufficient to last him nearly ten years; and he naïvely observed at the time that even if he found himself overstocked, he would never lack willing and profitable customers for any surplus he might have. This same gentleman was wearing an overcoat at the time which was so unique, that though it could not have been equalled, might easily have been surpassed in London for 4*l.* or 5*l.*, and for which he had paid the bagatelle of 860.

It is only a few weeks ago, a contemporary published a letter from an Italian correspondent, in which the writer stated that certain manufacturers in Italy had so thoroughly realised the demand in Spain and other countries for goods of English manufacture, that they had sent men over to this country to study the process of manufacture, and that having by dint of time and expenditure, produced an article in every respect equal to the English one, they were still unable to get their customers to adopt them, that they had in fact, given it up as hopeless to attempt to sell the goods so long as they acknowledged they were the makers, and had therefore, christened the goods with English names—a plan which, the correspondent added, completely met the case.

We have accompanied this sketch with a rough skeleton map of the countries we are referring to; the space prevents it being complete enough to comprise all the names we quote, but it may serve as a guide to convey an idea of the description, and of the relative areas and distances.

Brazil, the largest territory in the whole continent, covers an area equal to that of the whole of Europe, and has a population of over 11,000,000. This empire cannot, strictly speaking, be classed with the Spanish markets, as the language is for the most part Portuguese, but this offers no practical difficulty. Any firm catering through Spanish mediums for a trade in South America will very soon discover that its name has been seen by the Brazilian reader. The difference in the two languages is so insignificant practically, that it offers no line of demarcation. Newspapers in both languages circulate freely among the same people, and though a Brazilian cannot naturally write or speak Spanish, he can understand it either spoken or written; and, again, Portuguese offers no difficulty to anyone fairly versed in Spanish. Bearing this fact in view, we may look upon Brazil as practically within our present scope. Rich and varied in her produce, as well as in her mineral resources, she offers an incomparable field to the trader. Her imports during the year 1882 amounted to 16,122,000*l.* and during the same year her export list reached no less than 36,325,800*l.* And to show the share that we possess in her commerce, we have but to turn to the records for the year 1883. The exports from this country during that year amounted to 7,015,333*l.*, comprising 18,887*l.* in alkalis, farinacia 87,467*l.*, drugs 43,845*l.*, articles in earthen and china ware 103,968*l.*, glass manufacturers' phials, &c., 23,350*l.*, leather, inclusive of trusses and such-like surgical appliances, 197,811*l.*, oils 46,000*l.*, quicksilver 7,199*l.*, spices 4,581*l.*, perfumes and spirits 3,300*l.*, tea, in bulk and packets, 31,973*l.*, and general goods 304,302*l.* Pará is the great seaport of the north, through which the main trade is carried on, owing to its being the nearest point of access, and its offering the readiest means of access into the interior, but Maranhão and Ceará are also well frequented by the majority of European steamers.

Judged by the standard of her trade with Great Britain, the next territory in South America is that now termed the Argentine Confederation. She is a rising and opulent state, whose trade annually registers a rapid increase. From England alone in 1882 she imported goods to the value of 4,265,486*l.*, and in the following year her imports from us had risen to 5,050,426*l.*, a very considerable increase, especially when taken in conjunction with the fact that almost all the other countries in

South America show a diminution in the same period, as will be seen by the following tabular statement:—

	Exports from United Kingdom to					
	Brazil	Arg. Confed.	Chili	U.S. Colombia	Uruguay	Ecuador
1882 ..	£ 7,325,319	£ 4,285,486	£ 3,152,210	£ 1,088,392	£ 1,484,638	£ 249,734
1883 ..	7,015,333	5,050,425	2,188,878	1,253,347	1,328,071	181,542

The Argentine Confederation is very cosmopolitan in her views, and makes it her boast that her territory is the home of the foreigner, and this indeed can scarcely be termed a boast when we remember that in her population, which barely exceeds 2,500,000, there are no less than 85,000 Italians. Buenos Ayres, the capital, is the seat of the Government, and the port through which nearly all her trade is done. We may mention that during the year 1883 Great Britain shipped to Buenos Ayres medicines and drugs to the (invoiced) value of 21,720*l*.

It is unnecessary to allude to the remaining South American states in the same detailed manner, but we may point to the proud Republic of Venezuela in the north, the capital of which is Caracas, with its port of Guayra, only 16 miles distant, and also the port of Cumana. The Venezuelan imports represent about 3,000,000*l*. annually, of which about one-fifth are British. Then we have Chili, with its port of Valparaiso, whose proximity to the capital Santiago gives it great advantages over the ports of Valdivia and Concepcion. The Chilean Government offer every facility for the introduction of English goods at reasonable entry dues. Uruguay, too, famed for its capital and port of Monte Video, the seat of the tinned-meat trade, gives to England a large proportion of her custom. Her total imports in 1882 equalled 3,786,000*l*., of which England's share was 1,484,638*l*. Peru, again, lays out about 1,000,000*l*. with us annually. Callao, her principal port, is linked by rail to Lima, the seat of the Presidency. No special mention is needed of the other states—Bolivia, Ecuador, Paraguay, &c.; we would rather remind the English merchant of the wealthy strip of land called the Pearl of the Antilles—the island of Cuba—with its splendid port of Havana and its auxiliary port of Matanzas. This is one of the great sugar-producing centres, and has perhaps better and more frequent communication with England than any of the other Spanish-American markets.

Our rough survey would be incomplete without some allusion to the means of communication between this country and the ports we have referred to. With reference to Cuba, there is a weekly line of steamers running from Liverpool to Havana. The Liverpool and Northern Brazil mail steamers leave Liverpool fortnightly for Pará, Maranhão, and Ceará. The Pacific Steam Navigation Company's vessels leave Liverpool every alternate Wednesday for Brazil, River Plate, and west coast of South America, and these steamers are in connection with coasters running between Valparaiso, Panamá, and the Central American states. The Royal Mail Steam Packet Company's steamers leave Southampton twice a month (2nd and 17th) for Mexico, Colon, or Aspinwall—Central American and South Pacific ports. The same company despatches an additional steamer on the 11th of each month for the West Indies, La Guayra, &c., &c. The Brazil and River Plate mail steamers also leave Southampton frequently for Pernambuco, Bahia, Rio de Janeiro, Monte Video, and Buenos Ayres, and the West Indian and Pacific Steam Company despatch steamers at frequent intervals from Liverpool for Trinidad, La Guayra, Puerto, Cabello, Curaçao, Maracaibo, Savanilla, Cartagena, Colon and Vera Cruz.

Having thus briefly mapped out the markets of Spanish America, we have only to add that the English merchant may assure his goods a welcome there if he takes the means of making them known. This inference is a fair one from the actual proportion of trade which the markets referred to already concede to us, although, comparatively speaking, unsolicited. The advertisements in the papers that reach us from these countries show that the trade is an item well worth seeking. Specifics and patent medicines of French, German, and American origin monopolise the majority of the advertisement columns. The Americans and the French are usually

content to introduce their goods through commission agents, or even by direct trading. The Germans are not so easily satisfied. They overrun the country with travellers, and, in spite of all, their aggregate results show that the English article is the most highly-valued. A select few have found their way into these markets, and seem to show no signs of withdrawing. One of the leading papers in Cuba displays the advertisement of a well-known perfume export house in London. This is only one instance of which many might be given, and we feel sure that English firms have but to make the needful effort to reap a very rich harvest.

TRADE-MARKS APPLIED FOR.

From the "Trade Marks Journal," November 12, 1884.

"THE LIVERPOOL VINEGAR AND PICKLING COMPANY, celebrated for excellence of quality," with a design, for vinegar and pickles. Alfred Rowlands, trading as the company, Tagus Street, Lodge Lane, Liverpool. No. 38,527.

"WELHAM'S CELEBRATED NORWICH CANARYDINE BREAD, a noted food for canaries," with a design. Wm. Welham, Gordon Grove, Brixton. No. 38,867.

SOUTH AMERICAN BRAND, with a man holding a bull by the horns, for meat extracts. Loudon Manufacturing Company, 59 and 60 Hatton Garden, London. No. 39,207.

JOHN GRUNDY, STOCKPORT, trade-mark and a design, aerated waters and ginger-beer. John Grundy, Edward Street, Stockport. No. 39,423.

F. M. & Co., monogram and design, for aerated waters, ginger-beer, &c. Forbes, Maxwell & Co. (Lim.), Aberdeen. No. 39,559.

DR. DOUGLAS' MAORI CIGARETTES, 2s. 6d. per packet of thirty, with a label, for anti-asthmatic preparation, not containing tobacco. T. Kennedy Douglas, M.B., 2 South Street, Perth. No. 39,811.

FOAMINE, with picture of a pump, for a chemical compound to produce foam on beer or other liquors. Thomas Mason, 10 Derby Road, Nottingham. No. 39,901.

R. WARING, BOROUGH SODA-WATER WORKS, BURNLEY, for aerated waters. R. Waring, Burnley, Lancs. No. 39,937.

CASE'S OILS, either alone or with trade-mark and medallion portrait, for a preparation for veterinary purposes, by Ann Dodman, 137 Kettering Road, Northampton. Nos. 39,952 and 39,953 (November 26).

SPARKLING CASTALINA, an aerated non-alcoholic beverage. John Mackay & Co., Edinburgh, Glasgow, and Newcastle-on-Tyne. No. 40,015.

WINDMILL, six-armed, picture of, for varnishes. W. M. S. Merrikin, Greenland Works, Sealecoates, Hull.

SIROF POUR LA GUERISON des maladies de poitrine, &c., with signature, Chls. Vermeulen, pour le gros, 143 Chaussée de Watre, Anderghem, on a label, for a medicinal syrup. C. Vermeulen, Brussels. No. 40,092.

TISICON, a medicinal preparation for human use. Wm. B. Trick, 92 Green Lanes, N. No. 40,131.

SUJI MUJI, for cleansing, washing, and carbolic powders. Edward Light, 339 Upper Street, N. No. 40,164.

THYMO CARBOL and THYMO PHENOL, for candles, soap, washing-powders, and benzoin collas; also for perfumery and toilet preparations. F. C. Calvert & Co., Bradford, Manchester. Nos. 40,185, 40,186, 40,188, 40,189.

PUMPHERSTON, in a design for oils. Pumpherston Oil Company, St. Vincent Street, Glasgow. No. 40,234.

EBONINE, for stoppers for bottles. Rich. Ed. Goolden, 24 Suffolk Grove, Southwark, S.E. No. 40,244.

CITY MEAT, for dog biscuits. PHOENIX MEAT, for carbonated dog-biscuits. Walker & Harrison, Phoenix Biscuit Works, Ratcliffe Cross. Nos. 40,278 and 40,279.

THE VETS, for horse-powders, &c. Jas. B. Wheen & Sons, Old Haymarket, Sheffield, druggists. No. 40,287.

S. S. S. in a trefoil, for a beer preservative. Prentice Bros., Stowmarket. No. 40,331.

From the "Trade Marks Journal," November 19, 1884.

NEURALGINE, medicinal preparation, used over two years before 1875. Firm trading as J. F. White, 17 Vicar Lane, Leeds. No. 37,534.

OUR SPECIAL DRY SOAP and design, for dry soaps. W. W. Osgerby, 32 Hedon Road, Hull. No. 38,135.

COMPOUND OXYGEN, medicine for human use. Wm. Garner, Sandhill House, Frodsham. No. 38,956.

THIS PLATE-POWDER is better and cheaper than any other to be obtained elsewhere, invented and manufactured by Patrick John Conway, 48 William Street South, Dublin, with other matter, on a label. No. 39,035.

VERMILION LEAD. Plumbum vermillion, M. & Co. in a design, for a new red pigment. J. C. Martin, as "Martia & Co.," Albion Works, Mary Street, South Lambeth, S.E. No. 39,461.

PARKER'S SPECIALTIES NOT TO BE BEATEN, and a drum with the head broken, for medicines. Sam. Parker, 360 Leeds Road, Bradford. No. 39,522.

THE SELF-WASHER, for soap, washing-powders, &c. Lever & Co., Market Street, Wigan. No. 39,714.

DEAN & HARRISON'S SPECIFIC, with horse's front and hind leg in a design, for veterinary embrocation. R. Dean, Forest Hill, and J. Harrison, Rowland Grove, Sydenham, S.E. No. 39,765.

MONFLEUR PILL, for medicine for poultry and game. Wm. Patey, 49 Scrutton Street, Finsbury. No. 40,000.

HERCULES trampling on a serpent, picture without wording; medicated articles for human use. James Hurst, chemist, 4 Greencroft Road, Oldham.

BIRMINGHAM SYPHON COMPANY, with monogram and design, for aerated waters and ginger beer. Jas. Osman, trading as the company, 12 Bishop Street South, Birmingham. No. 40,133.

Pictures of a fountain, of a man leading a camel, of Hindoo snake-charmer, for chemicals used in photography and research. Volkart Bros., Winterthur, Switzerland, merchants. Nos. 40,135, 40,136, and 40,137.

COLZARINE and a design, for oils. Ogilvie, Rohson & Co., St. Nicholas Buildings, Newcastle-on-Tyne. No. 40,154.

Dead lion and bees, with words "OUT OF THE STRONG CAME FORTH SWEETNESS," for sugar and syrups. Ahram Lyle & Co., Plaistow Wharf, Victoria Docks, E. No. 40,178.

CASHMERE BOUQUET, perfumery, &c. Colgan & Co., New York. No. 40,193.

MATER, for feeding-bottles. Thompson, Millard & Co., Curtain Road, E.C. No. 40,194.

NOT TO BE BEATEN, and picture of a drummer boy stretched on the sands near the pyramids, for manufactured tobacco. J. Ha'c, as Brailsford & Co., 301 Shales Moor, Sheffield. No. 40,201.

Stag in a shield, for aerated waters and ginger-beer. Sarah M. A. Rogers, chemist, High Street, Newmarket. No. 40,358.

From the "Trade Marks Journal," November 26, 1884.

NAUSEASINE TABLETS FOR PREVENTING SEA-SICKNESS, in a label. Gale & Co., 15 Bouverie Street, E.C. No. 38,068.

MAGIC STOVE-POLISH for blacklead. Zetterquist & Sons, 60 Blackfriars Road, S.E.

CARTLETON MINERAL-WATER COMPANY (LIM.), with design and address, for aerated waters, Mere Lane, Rochdale. No. 38,890.

"ROYAL DRY SOAP should be used in all cleansing operations," and "THE ORIGINAL CARBOLIC DRY SOAP," and designs. Marks & Tellefsen, Widdow Street, Bristol. Nos. 39,319 and 39,320.

"CROWN BRAND" words, for acids and chemicals used in manufactures. Scott & Co., Marshgate Lane, Stratford, E. No. 39,566.

TYRIAN BLUE, and figure, for liquid blue for laundry. Tyrian Blue Company (Lim.), Battersea Park Road, S.W. No. 39,650.

LOWE'S PILLS. R. H. Lowe, 330 Bilton Road, Wolverhampton. No. 39,661.

ERACTRIC, in script letters, for colours and mineral dyes. Ch. Hooper & Co., Eastington Mills, Stonehouse, Gloucester. No. 39,746.

"BRITISH INDIA CURRY POWDER, sole agents Boyack & Co., 88 Bishopsgate Street, E.C., &c., on a label. Walker Brothers, 88 Bishopsgate Street, E.C. No. 39,915.

THE NEW ERA BEER, &c., on a label, non-alcoholic and non-aerated beverage. Simcon Clayton & Sons, Ormside Street, Old Kent Road, S.E. No. 40,088.

PEARS' UNSCENTED TRANSPARENT SOAP, &c., on label, used about eleven years before 1875; A. & F. Pears' GENUINE TRANSPARENT SOAP SHAVING STICK, &c., on label, used about twenty years before 1875; PEAR'S, INVENTOR, 91 GREAT RUSSELL STREET, &c., TRANSPARENT SOAP TABLET, SHAVING CAKES (two labels), SHAVING SOAP, GLYCERINE SOAP, SOAP TABLET PERFUMED WITH OTTO OF ROSES, for soaps in class 47, and perfumed by A. & F. Pears, 39 & 91 Great Russell Street, Bloomsbury, London. No. 40,096 to 40,109.

IMPERIAL, THE BRISTOL, for feeding-bottles, &c. Thompson, Millard & Co., Curtain Road, London. Nos. 40,218 and 40,219.

TATTOO OIL, for paints, sheep-dips, oils for making paints and varnishes, three classes. David Storer & Sons, Sydney Street, Glasgow. 40,290, 40,291, and 40,292.

MALTINE, in fancy type, for medicinal preparations. Maltine Company (Limited), Hart Street, Bloomsbury, W.C. No. 40,301.

SUN FLOUR BAKING POWDER. The British Tea and Trading Association (Limited), 118 Southwark Street, S.E. No. 40,402.

SPIRONE, medicinal preparation. Dr. John Francis Churchill's Inhalants Company (Limited), 74 Gresham House, London. No. 40,429.

O. K., in design of two hearts, for chemicals used in photography and research. U. S., in similar design, for the same, and for soap and detergents. W. Alfred Sparrow, 2 Jeffreys Square, St. Mary Axe, E.C. Nos. 33,216 and 33,217.

EAST INDIAN THEODINE, &c., on a label; for patent colouring and preservative used in the manufacture of polonies, &c. Tom Bardsley & Co., 2 Exchange Buildings, Market Street, Manchester. No. 38,024.

CAPILLIFERO and label, preparation for the hair. J. J. Laffan, 126 Quay, Waterford, Ireland. No. 38,759.

GLACIALINE in skeleton letters, antiseptic. Charles Lamont, trading as Anti-tropic Company, 126 Renfield Street, Glasgow. No. 38,872.

FLAVORA, substances used as cattle food or as ingredients in cattle food for animals. Charles Simpson, manager to Simpson & Co., 54 Chiswell Street, E.C. No. 39,061.

THE BRITISH HONEY COMPANY, map, &c., for honey. Thomas B. Blow, trading as the Company Welwyn, Herts. No. 39,793.

CHEVALIER'S SOLUBLES and design, for medicines for human use. Fred. Knight, trading as "François Chevalier & Co.," 17 Bartholomew Close, E.C. No. 40,089.

TUSSILINE in fancy letters, for a patent medicine. Alf. Hodgson, 3 Millbrook Place, N.W. No. 40,224.

CHAPMAN'S, THE GOLDEN REMEDY, HORSE, SHEEP, AND CATTLE OILS, GRIMSBY, and design for veterinary medicines. Ch. Chapman, as "Chapman & Sons," 221 Cleethorpe Road, Great Grimsby, Lincs. No. 40,238.

Design of white lines on dark circle for chemicals used in manufactures, photography, and research. F. Arbridge, Holliday & Co., 57 King Street, Manchester. No. 40,257.

WILLOW CORN ERADICATOR. Albert Hendy, trading as the "Willow Corn Company," 98 Thorpedale Road, Finsbury Park, N. No. 40,300.

"THE BUXTON APERIENT SALINE, manufactured only by the Aerated Table-water Company, Buxton," with design and label for a medicinal water. J. C. Thresh, trading as the Company. No. 40,312.

Silhouettes of heads of all kinds of live stock, for foods for live stock. Turner & Co., London Street, Bethnal Green, E. No. 40,368.

THE SOMERSET, for philosophical instruments. W. & J. Burrow, Great Malvern. No. 40,460.

JORDAN ALMOND for boiled confections. John Millar, Duke Street, Leith, Edinburgh. No. 40,465.

From "Trade Marks Journal," December 10, 1884.

JOHN BOND & CO.'S SOCIETY OF ARTS, Paris, premier, gold medal, MARKING INK, with design and label, also in French and German. James Hickison, trading as "John Bond," 75 Southgate Road, London. Nos. 39,526, 39,527, and 39,528.

PARFUMERIE A L'INORA, also CACHET DE GARANTIE, PARFUMEUR CHIMISTE (used for three years before 1875), also BRISA DE LAS PAMPAS parfum exotique, each with signature "Ed. Pinand," also another design of a basket of flowers, surrounded by name and address (used for seventeen years before 1875), for perfumes and scented soaps, by Emile Meyer, trading as "Emile Meyer & Co.," 37 Boulevard de Strasbourg, Paris. Nos. 39,884, 39,885, 39,888, 39,890.

LUMINOUS BLACKLEAD, design of sunflower, for blacklead for domestic use. Wm. M. Westall, trading as "Albert Laundry-blue Manufacturing Company," 132 Upper Thames Street, E.C. No. 39,938.

GLOBE and picture of a man rolling a globe along, with a bottle on top, for furniture and leather polish. H. M. Ginton, trading as "Globe Polish Manufacturing Company," 57A High Street, Fulham.

KAISER ZAHNWAASSER, with lion's head as trade-mark, signature and label, for tincture or wash for teeth, by S. Goldmann, 25 Hohestrasse, Dresden. No. 40,051.

QUEEN'S OWN ELECTRIC SNUFF, for medicated snuff containing no tobacco. City Drug Company, 147 Queen Victoria Street, London. No. 40,182.

WEST LONDON MINERAL WATERWORKS, with signature, by Wm. Watts, 374 Uxbridge Road, Shepherd's Bush, W. No. 40,316.

ELECTRIC in script letters for dyes, not mineral, by Chas. Hooper & Co., Eastington Mills, near Stonehouse, Gloucestershire. No. 40,371.

MIRROHINE, in fancy letters with design, for a liquid medium for artistic painting, by Eliza Turek, 151 Gloucester Road, Regent's Park, London, artist. No. 40,410.

ULTIMATUM CORN CURE, with label and signature, by Jos. Davis, 205 High Street, Stoke Newington, hairdresser, &c. No. 40,427.

"C₆H₅, LITTLE'S SOLUBLE PHENYLE, deodoriser and antiseptic, the best disinfectant," with label and design, for a fluid disinfectant, by Morris Little & Son, Priory Place, Doncaster. No. 40,428.

CURDALINE, for common soap, by the Airedale Soap Company, Shipley, Yorks. No. 40,468.

- MUSTARDYNE, for mustard, by Wm. Clarke, 5 Upper Pownall Street, Liverpool. No. 40,475.
- WISEMAN'S INFANT'S COMFORT or wind mixture, free from poppies, laudanum, and opium, with label and design, by E. H. Wiseman, 152 Milton Road, Gravesend, chemist. No. 40,512.
- KAFIR, KEFIR, AND KEPHIR, for a milk ferment and fermented milk, alone and as used in medicine and pharmacy, by the Aylesbury Dairy Company (Limited), 31 St. Petersburg Place, W. Nos. 40,536 to 40,541.
- HIPPEACEA, for chemical substances used for veterinary purposes. Fr. Hy. Bowden, 29 Lansdowne Road, Croydon. No. 40,587.
- CASPIAN OIL, for illuminating and lubricating oils, by Sam. Ward & Co., 32 Gt. Guildford Street, Southwark, S.E. No. 40,586.
- THE PERFECTED COD-LIVER OIL, by Allen & Hanburys, Plough Court, London. No. 40,588.
- SAVONNERIE, COSMYDOR, as part of a trade-mark for perfumery, not hair-dyes, by Leon Marchandise, 53 Boulevard Sébastopol, Paris.
- THE STAFFORDSHIRE AERATED WATERS COMPANY (LIMITED), with a shield and design, for aerated and mineral waters, by the company, Castle Street, Wolverhampton. No. 40,636.
- CONCENTRATED CARBOLATED CREOSOTE, with trade-mark and design for a disinfectant, by D. & W. Gibbs, City Soapworks, London, and Abbey Chemical Works, Stratford. No. 40,664.
- DESIGN of a rose on the letters W. F. in a star, for perfumery, by Warrick Brothers, Old Swan Lane, E.C. No. 40,685. (Used since before 1864.)
- QUEEN'S OWN, for pills and ointment and all other medicines by the City Drug Company, 147 Queen Victoria Street, E.C. No. 40,719.
- MAGNET in fancy type, for common soap, by Jos. Watson & Sons, Leeds. No. 40,733.
- BARCLAY & Co., New York, with picture of an alchemist, and also the signature "Barclay & Co.," for medicinal preparations and perfumery, by Geo. C. Barclay, trading as "Barclay & Co.," 44 Stone Street, New York, the former used by applicant and predecessors in business since 1801. Nos. 40,744 to 40,747.
- LITTLE'S PHENYLE DOG-SOAP FOR WASHING DOGS, with dog's head and design, by Morris Little & Sons, Doncaster. No. 40,758.

THE ESTIMATION OF MORPHIA IN OPIUM.

BY MICHAEL CONROY, F.C.S.

Read before the Liverpool Chemists' Association on December 4, 1884. Mr. Edward Davies, F.C.S., F.I.C., President, in the chair.

MORE papers have, perhaps, been written on the estimation of morphia in opium than upon the valuation of any other drug of the whole materia medica. Still, it is no exaggeration to say that nine-tenths of the published processes are worse than useless, since they have the tendency to mislead those who place confidence in them. I venture to think, however, that very few pharmacists take the trouble to assay the opium which they buy, and one can scarcely be surprised at this when the long and troublesome methods and the unsatisfactory results of most of them are considered. Take, for instance, our own official process (British Pharmacopœia), which, in careful hands, gives very fair results, and which, at the time of publication of the present Pharmacopœia, was possibly as good a plan as any published. Look, however, at the time required to arrive at the result. First, we are directed "to break down the opium and steep it in 1 oz. of water for twenty-four hours." After this it has to be percolated with the remainder of the water, the percolate then boiled with lime, evaporated, &c.; and, lastly, it has to stand another twenty-four hours for the morphia to separate. Here, then, even with good management, we have to wait three days for the result. Others, no doubt, like myself, have turned to the standard works and other literature of the day in the hope of meeting with a more expeditious process, and have become bewildered with the enormous and contradictory literature of the subject, and, after trying some of what seemed the best methods, have ultimately given them up and settled down to a more satisfactory process of their own devising with a feeling that it was quite useless trying any more of those published. This, I confess, is what I did myself, and it is only since the appearance of the present United States Pharmacopœia that I have changed my method of assay, and adopted, with some modifications, the plan there given. I find that this process is essentially the one devised

by MM. Portes and Langlois (*Journ. de Pharm. et de Chim.*, November, 1881, and *Chem. News* xlv., 67), and the same has been also, with slight alteration, adopted by the Société de Pharmacie de Paris. The process being, therefore, officially sanctioned was the consideration which prompted me to give it a trial. As given in the U.S. Pharmacopœia the test is as follows:—

	Grammes
"Opium, in any condition to be valued	7
Lime, freshly slaked	3
Chloride of ammonium	3
Alcohol .. ..	..
Stronger ether .. ..	..
Distilled water, each a sufficient quantity.	..

"Triturate together the opium, lime, and 20 c.c. of distilled water in a mortar until a uniform mixture results, then add 50 c.c. of distilled water, and stir occasionally during half an hour. Filter the mixture, through a plaited filter 3 inches to 3½ inches in diameter, into a wide-mouth bottle or stoppered flask, having the capacity of about 120 c.c., and marked at exactly 50 c.c., until the filtrate reaches this mark. To the filtered liquid (representing 5 grammes of opium) add 5 c.c. of alcohol and 25 c.c. of stronger ether, and shake the mixture; then add the chloride of ammonium, shake well and frequently during half an hour, and set aside for twelve hours. Counterbalance two small filters, place one within the other in a small funnel, and decant the ethereal layer as completely as practicable upon the filter. Add 10 c.c. of stronger ether to the contents of the bottle and rotate it; again decant the ethereal layer upon the filter, and afterwards wash the latter with 5 c.c. of stronger ether, added slowly and in portions. Now let the filter dry in the air, and pour upon it the liquid in the bottle, in portions, in such a way as to transfer the greater portion of the crystals to the filter. Wash the bottle and transfer the remaining crystals to the filter, with several portions of distilled water, using not much more than 10 c.c. in all, and distributing the portions evenly upon the filter. Allow the filter to drain, and dry it, first by pressing it between sheets of bibulous paper, and afterwards at a temperature between 55° and 60° C. (131° to 140° Fahr.). Weigh the crystals on the inner filter, counterbalancing by the outer filter. The weight of the crystals in grammes, multiplied by twenty (20) equals the percentage of morphia in the opium taken."

We have here a process that fulfils the chief requirements of the dealer, manufacturer, and the pharmacist, namely, *speed*; since by it a sample of opium may be put in hand on the evening of one day, and finished early on the morning of the next. This, compared with the lengthy and tedious method of the B.P. and other published processes, is indeed a great improvement, and one that recommends itself to the busy analyst. How, then, does it work; and are the results reliable? The first thing that strikes a practical chemist who has used the older processes is the shortness of time allowed for maceration (half an hour); and having myself grave doubts upon this point, the following six experiments were put in hand, using in each case the same opium. Three were worked strictly according to the directions given in the U.S. Pharmacopœia, allowing only the half-hour maceration therein directed; while the other three were macerated for twelve hours, but otherwise treated in the same manner. The percentages of morphia obtained were as follows:—

Half-hour Maceration				Twelve hours' Maceration			
No. 1	..	..	11.44	No. 1	..	..	11.42
No. 2	..	..	11.40	No. 2	..	..	11.48
No. 3	..	..	11.51	No. 3	..	..	11.50

From this we find that half-an-hour's maceration is sufficient for the complete exhaustion of the opium, as the above figures show no practical difference in the amount of morphia recovered.

The next point that strikes one is the fact that no allowance is made for the increase of bulk which is due to the extractive matter of the opium. The directions are to take "50 c.c., representing 5 grammes, of opium." Now this is not correct, since this 50 c.c. contains the extractive of 5 grammes of opium, equal to about 3 grammes in the moist state in which it exists in opium. This, from experiments that I have tried, increases the bulk to 52 c.c.; hence we have here an error representing 4 per cent. of the morphia to be obtained.

That no such allowance is made is certainly very strange when we find that the originators of the process, MM. Portes and Langlois, direct that 53 c.c. be taken to represent the 5 grammes of opium. It cannot be that the compilers of the Pharmacopœia did not conceive this increase to be important, when we find such strict instructions given respecting the size of filter, the exact quantity of water to be used in washing the precipitate, and other matters of less importance.

While on this part of the subject I may mention that there is no difficulty in obtaining the amount of filtrate required if there be plenty of time to allow the filter to drain, but, as one of the objects aimed at in the process is speed, it would be a considerable saving of time if 10 grammes of opium and 100 c.c. of water were taken in the first instance, instead of 7 grammes and 70 c.c. This would avoid loss of time, as the 50 c.c. required would soon filter, and the extra opium required is trifling in value compared with the gain in time.

In nearly all the older processes the amount of opium liquor is much reduced by evaporation before the precipitation of the morphia, with the object of reducing the error due to the solubility of that alkaloid in the liquor; but here we have the morphia precipitated direct from a mixture of water, spirit, ether, lime, and chloride of ammonia, equal in bulk to 80 c.c., for 5 grammes of opium, and the precipitate is further washed with ether and water, which, added to the 80 c.c., makes up a total of 105 c.c. The question then arises to what extent is the morphia soluble in this quantity of liquor of so complex a nature, and also as to whether the solubility is constant. It will also be observed that the quantity of chloride of ammonium is used in very great excess, and its effect upon the solubility of the morphia is well worth considering; consequently these two points will be referred to later on.

The principle of the process is, however, excellent, and the defects mentioned, though of much importance, are matters of detail that do not effect its beauty and simplicity. Without further delay then, I will give what I venture to call an improved process that I have adopted, and which after considerable experience has given most constant and reliable results. As most of us prefer working with our own weights and measures in preference to the metric, the quantities will be anglicanised:—

Opium, in any condition..	..	..	..	200 grains
Lime, freshly slacked ..	..	..	..	100 "
Water (distilled) ..	..	..	..	4 fl. oz.
Ammonium ehloride ..	..	..	..	40 grains
Ether '720 ..	..	..	..	10 fl. drachms
Sp. rect. ..	..	..	..	2 "

Triturate the opium and lime in a mortar until thoroughly combined; add gradually the water, continuing the trituration until a *perfectly smooth and uniform mixture* is produced. Stir the mixture frequently for half an hour, and place the whole in a filter of suitable size. Collect 2 fl. oz. and 38 minims of the filtrate (representing 100 grains of opium), and place it in a stoppered flask of 4 fl. oz. capacity. To this add the 2 fl. drachms of spirit, 8 fl. drachms of the ether, and the 40 grains ammonium chloride. Keep the mixture well shaken for half an hour, and set it aside for twelve hours. Counterbalance two small filters, and having placed one inside the other in a small funnel, decant the ethereal layer as completely as possible upon the filter. Add the remaining 2 fl. drachms of ether to the flask, shake gently, and again decant the ethereal layer upon the filter. After the ethereal liquor has passed through, pour upon the filter the remaining contents of the flask in such a way as to transfer the whole, or nearly the whole, of the crystals to the filter. Wash any adhering crystals from the flask to the filter, after the darker liquor has passed through, using 3 fl. drachms of water for the purpose. Allow the filter to drain, abstract as much water as possible by gently pressing it between several folds of filtering paper, and finally dry it at a temperature of 212° Fahr. The result gives the percentage of morphia *obtained* from the opium.

The difference between this and the U.S. process is, as before stated, points of detail, the reasons for the alterations being as follows:—

An extra quantity of opium liquor is made in the first instance, to save delay in filtering off the quantity required.

Two fluid ounces and thirty-eight minims of the filtrate is taken to represent 100 grains of the opium, instead of 2 fl. oz.,

the 38 minims representing the average increase in bulk due to the opium extractive.

The ammonium chloride is reduced by about one-third the quantity ordered in the U.S. Pharmacopœia, the reason for this being that the quantity therein ordered is much in excess, which is a matter of great moment, since an excess of this salt exerts a considerable solvent action on freshly-precipitated morphia, as the following will show. In these experiments the same opium was used, and the process just described strictly adhered to, but varying the quantity of ammonium chloride.

No.	Grains NH ₄ Cl Used	Morphia Obtained	No. of Experiments Tried
1	100	12.15	3
2	80	12.25	3
3	60	12.70	2
4	50	12.95	3
5	40	13.05	3
6	20	13.04	2

From this, as well as other tests, I found that the solvent action of 40 grains of NH₄Cl was practically *nil*, and this quantity being sufficient to precipitate the morphia under any circumstances, and in any sample of opium, however rich in morphia, it is quite unnecessary to use more.

Now the question comes as to what quantity of morphia is held in solution after the whole of the available quantity has been recovered by precipitation on standing twelve hours. To ascertain this, as far as practicable, the following experiment was made:—10 grains of pure morphia was dissolved in 2 fluid ounces and 38 minims of lime-water, to represent the quantity of opium solution used in the improved process above described. To this was added the spirit, ether, and ammonium chloride. After standing twelve hours, the precipitated morphia was collected on a counterpoised filter, washed with ether and water as directed, and weighed. The amount recovered was 9.08 grains, and three other experiments, similarly carried out, gave respectively 9.05, 9.02, and 9.06 grains, thus showing that the quantity of morphia held in solution is, practically speaking, 1 grain. These figures also show that the quantity retained is uniform.

There is still another point to be decided in connection with this process which I have not had time to enter into for this meeting, but which I hope to have the pleasure of laying before you at an early date. It is as to whether there is anything gained by allowing the solution to stand for twelve hours after the addition of the ammonium chloride. My impression is that two or three hours is quite sufficient, but, of course, this must be ascertained by practical experiment.

In conclusion, I have only to call your attention to the following advantages of the process as compared with others:—

1. Its greater rapidity and simplicity.
2. The more constant and reliable results obtained by it.
3. The greater purity of the morphia recovered than by any other process where direct precipitation is employed.
4. The avoidance of evaporation and loss by crystallisation from alcohol.

I have to express my obligations to Messrs. Evans, Sons & Co., to whom I am indebted for supplying the material and allowing these experiments to be conducted in their laboratories, expressly for this paper.

The PRESIDENT asked if the lime was weighed as quick-lime and afterwards slacked, or as slacked lime. He was much interested in the process, which gave results in dealing with a complex organic matter comparable in the closeness of the results with any defined inorganic substance. His own experience was that the Pharmacopœia process was tedious and inaccurate. He congratulated the members on the valuable papers containing original research which had been contributed this session, among which Mr. Conroy's was remarkable for the thoroughness of the examination of details, the simplification of the process, and the saving of time.

Mr. J. S. WARD said he had listened with much pleasure to the paper, and the process suggested seemed to be a very great improvement on that of the British Pharmacopœia;

and he further thought that Mr. Conroy, in his modification of details, had made two considerable improvements on the United States official process. What he referred to were, first, drying the precipitated morphia at 212° F. (100° C.) instead of at 55° C. to 60° C., as he had frequently found it very tedious work to get rid of the last traces of moisture from organic precipitates at a lower temperature than about 100° C. The second point was the correction of volume for the amount of extractive matter taken up by the water, which appeared to be an oversight in the United States official process. Altogether he considered the paper so well worked out that it almost defied criticism, but he should like to ask Mr. Conroy if he had tried precipitation of the alkaloid by bicarbonates, as he believed that alkaloids generally were much less soluble in excess of bicarbonates than in hydrates; and he would also like to ask if in filtering the mixture of spirit, ether, and water, Mr. Conroy had first moistened the filter-paper with the fluid he desired to pass through first, as he believed that filter-papers thus moistened had a kind of selective action upon the mixture to be filtered.

Mr. A. C. ABRAHAM said that Mr. Conroy had as usual brought before them a thoroughly practical and valuable paper. He (Mr. Abraham) did not feel competent to say much, in part because Mr. Conroy had so completely protected himself from criticism by his experiments, and also because all the points involved could not be easily grasped during the reading of the paper, but would require the paper to be re-read when in print. The most striking point about the process was the great purity of the product. He had never been able to get the morphia out by the Pharmacopœia process anything like so pure, and recently a lot which he had recrystallised was still far from equal in purity to the specimens shown. He was not sure about the quantity of chloride of ammonium, which might have another function than that primarily supposed, which function might not be equally brought into play with all samples. He had great pleasure in moving a very cordial vote of thanks to Mr. Conroy for this valuable paper.

Mr. A. H. SAMUEL said that he did not claim any practical experience in the analysis of opium, but he considered the paper to which they had just listened to be a very able one, and he personally derived much information from it. He had therefore much pleasure in seconding the vote of thanks which had been proposed by Mr. Abraham.

The vote was then put from the chair, and carried by acclamation.

Mr. CONROY thanked the meeting for the kindly manner in which they had received his paper, and, in reply to the questions which had been asked, said the lime was weighed as slacked lime. He had not tried the mode of precipitation mentioned by Mr. Ward, and was not aware that it was practised. In reference to moistening the filter, he might say that if the ethereal layer were carefully filtered through first, there would not be much difficulty experienced, but he had no doubt that the plan proposed by Mr. Ward was an excellent one.

CHARCOAL POULTICE.—

	Parts
Powd. wood charcoal	1
Bread-crumbs	4
Linseed-meal	3
Boiling water	20

Macerate the bread in the water for ten minutes, mix thoroughly, and add the meal gradually, and stir the ingredients until a soft poultice is formed; mix one-half of the charcoal with this, and sprinkle the remainder on the surface of the poultice.—*Nat. Druggist.*

ARNICA JELLY.—This is a popular preparation for chapped hands:—

	Parts
Glycerine	8
Water	2
Starch	1
Tr. arnica	1
Oil rose	q. s.

Heat the glycerine, water, and starch until it becomes a transparent mass; when nearly cool, add the tincture of arnica, and perfume with oil of rose. If desired, it can be coloured with tincture of alkanet.—*Nat. Druggist.*

SAND SOAP AND TRANSPARENT SOAP.

THE following are abstracts from the *Seifensieder Zeitung* given in the *Journal of the Society of Chemical Industry*:—

SAND SOAP.

Under the name of sand soap a new detergent of peculiar appearance and composition, of English origin, has been recently placed upon the market. It is greyish white in colour, heavy as stone, and rough and sandy to the touch; on rubbing the hands with it particles of sand adhere to the skin. It is, in fact, an intimate mixture of fine sand with ordinary soap. In order to ascertain its composition, the writer has subjected it to analysis and finds it to contain 70 per cent. of fine sand; the saponified fat was palm oil. Experiments showed it to have no disagreeable or damaging effect on the hands when used as a detergent, and proved it, moreover, to be an excellent cleansing soap, especially suited for the use of workmen engaged in rough and dirty avocations. The author has made various experiments with a view to ascertain the maximum amount of sand which a soap of this kind can take up, and finds that 100 parts of soap can take up 200 parts of sand, but it is not advisable to add the full quantity, as the mixture will no longer lather properly. To make a good "sand soap" the author recommends the following method:—One hundred lbs. of cocoanut oil are saponified with about 200 lbs. of lye at 20° B. The soap is then hardened by the addition of about 8 lbs. salt dissolved in water to a density of 15° B., with the addition of 6 lbs. to 8 lbs. soda ash. The soap is now covered up and the foam allowed to subside. After standing five to six hours the fob is skimmed and the soap is run off into the coolers. Whilst this process has been going on the sand has been dried and sifted, and the soap now being thoroughly crutched, the sand is sifted over it until 100 lbs. to 150 lbs. have been added. The crutching must be continued until the mass is perfectly cooled. The soap is very firm and hard, and must be cut as soon as cooled. To perfume the mixture add of essential oil of lavender, thyme, and coriander 100 grammes each.

TRANSPARENT GLYCERINE SOAP.

The manufacture of transparent glycerine soap does not present any especial difficulty; there are nevertheless points which it is essential to observe. To produce first-class soap of this kind good materials are indispensable, and the proper proportions must be strictly adhered to. Tallow and stearine are the most useful hard fats, palm oil imparts to the soap its lathering qualities, and castor oil gives transparency. Great transparency is attained by the use of spirit and of sugar-water, both of which bodies assist the normal saponification. The lye must be pure, and clear as water; its proportion should not exceed 20 per cent. of lye per lb. of fatty matter, for an excess of alkali would make the soap too detergent, and a considerable excess of unsaponified fat would make it too weak and greasy. In one case the soap injures the skin in use, in the other the soap would soon lose its agreeable smell and finally become rancid. Even an excess of glycerine is to be avoided, as it renders the soap less transparent, and also too soft. No filling whatever except sugar solution is permissible. The following proportions are recommended:—

WHITE ALABASTER SOAP.

	Lbs.		Lbs.
Stearine	13	Thirty-eight degrees lye ..	18
Palm oil	22	Ninety-six per cent. alcohol ..	26
Glycerine	13		

The stearine and palm oil are to be heated to 65°, saponified with the lye, the alcohol added, and when the combination, which takes place at once, is complete, the glycerine is put in. When clear, the kettle is covered and the contents are allowed to stand at 45° R. The soap is run into the moulds and perfumed with:—

	Grammes		Grammes
Bergamot oil	120	Neroli oil	25
Geranium oil	30	Citron oil	30

As this is a white soap no colour is added.

TRANSPARENT GLYCERINE SOAP.

	Lbs.		Lbs.
Tallow	20	Spirit	20
Palm oil	12	Glycerine	20
Castor oil	8	Sugar dissolved in	5
Thirty-eight degrees lye	20	Water	5

Process as above. Perfume with oil of bergamot, 250 grammes; citron, 90 grammes; lavender, 20 grammes; neroli, 30 grammes; rosemary, 5 grammes; and a few drops of otto of roses, dissolved in 1 lb. of 96° alcohol; colour with saffron substitute.

LUDICRA MEDICA.

By W. B. A. SCOTT, M.D.

THE relation of cause and effect in the production and cure of disease is undoubtedly very obscure, and this obscurity has been the origin of many wonderful theories and strange prescriptions, in which vital importance is ascribed to accidental concomitants, and *post hoc* has been rashly supposed to be synonymous with *propter hoc*. The Rev. J. Macaulay, for instance, who wrote an account of St. Kilda in the last century, asserted that all the inhabitants of that island caught colds whenever a stranger landed, and Dr. Campbell (author of "Hermippus Redivivus," &c.) endeavoured to account for this by the supposition that morbid effluvia might emanate from the bodies of the visitors.* The occurrence of the epidemic is said to have been fully proved by the fact that annually, on the arrival of the factor who came to receive the rents, all the inhabitants fell a-coughing. Dr. Johnson cynically hinted that this might be done in order to excite commiseration, and so awaken forbearance in the matter of arrears; but, however this may be in the case of the St. Kilda islanders, instances of similarly inexplicable periodicity or concurrence have happened within the memory of some still living. I knew a gentleman in robust health, and habitually quite free from all cephalalgic tendencies, who was invariably attacked by so violent a sick headache whenever his mother-in-law stayed at his house, that he was always either confined to his bed during the entire period of his esteemed relation's visit, or, in prolonged cases, forced to seek a cure in change of climate. A lady friend of mine has long suffered from such violent nervous paroxysms every Sunday morning that for years she has been unable to go to church, and several of my fellow-students were seized with a sudden and indescribable kind of indisposition five days in every week from October to April, just before the hour of the anatomy lecture. The effects of the ingestion of various kinds of solids and liquids differ greatly in the case of different individuals. It is well known that Sir James Simpson has recorded the case of a gentleman who always fell violently sick after eating roast beef, and patients have been found on whom opium acted as an aperient, and Epsom salts as a hypnotic. But there are stranger instances than these in print. When Mr. Pickwick and his friends returned home late one evening, and scandalised the ladies by the unsteadiness of their gait and the thickness of their articulation—the feats of walking a chalked line and pronouncing "truly rural" being equally beyond their power—Mr. Snodgrass

assured all present that these phenomena were due, not to the wine which they had imbibed, as Mr. Jingle too hastily concluded, but to the "salmon" of which they had partaken. Scarcely less remarkable is the case of Tom Tulliver, cited by George Eliot in the "Mill on the Floss," who always found the study of Euclid give him toothache. I knew a young lady who was invariably attacked by a paroxysm of somnolence when her mother requested her assistance in making up the weekly bills, and very singular curative and prophylactic measures still find many devout adherents. Some people firmly believe that they will enjoy perfect immunity from rheumatic attacks so long as they carry a potato in their pockets. Others are equally convinced that warts can be effectually cured by the verrucose patient burying a piece of stolen meat in the earth. Others, again, have found actual panaceas in what most people regard as ordinary articles of diet. Thus, one of Roderick Random's captains was fully persuaded of the efficacy of Hollands against all the ills to which flesh is heir; and although he was found dead in his bed one morning with an empty bottle beside him, this might have happened, as Smollett justly remarks, from either too small or too large a dose having been taken. Our old friend "Mrs. Brown" found "the least as is, took medicinal" a polybrest—thus in some degree corroborating the opinion of the gallant captain. It would be easy to multiply similar "modern instances."

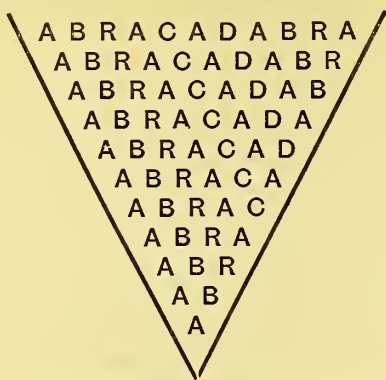
Yet, laugh at them as we may, it would be easy to match the most absurd of the above extravagancies with *dieta* uttered from the chair of authority. Galen seems seriously to have attributed the cure of a case of epilepsy to the patient having worn a red pæony suspended from his neck. Actius, Paul of Ægina, and Alexander of Tralles, all dealt largely in charms and amulets, of which the following may serve as specimens. They are taken from Dr. Rutherford Russell's "History and Heroes of the Art of Medicine."

One of the most efficacious remedies for epilepsy is the nail taken from the arm of a crucified malefactor. For the cure of colic, the use of a stone is recommended, on which the figure of Hercules killing a lion is engraved; or a verse of Homer, and a gold plate on which certain meaningless Greek words had been inscribed, when the moon was waning. A particular plant is recommended for the cure of gout, but over it the words Iao, Sabaoth, Adonai, Elohi, must be pronounced. The amulet for a quotidian ague consists of an olive leaf, on which the letters KA. POJ. A. were written in ink. When a man got a splinter in his eye, he was directed to lay his hand upon the injured organ, and repeat three times, "*Tetuno resono bregan gresso*," and after each time of repetition he must spit upon the ground. If a bone stuck in a person's throat three times, "*Os gorgonis basio*" was to be repeated nine times, and then the bone was to be extracted.* To cure a sty upon the eyelids, the points of nine barleycorns were to be rubbed upon the part, and, on each application, the words, "*Fuge, fuge, kritic se diokai*" were to be ejaculated. When the sty was on the right eye, it was to be rubbed with three fingers of the left hand; the patient was to spit three times, and thrice to utter, "*Nec mula parit, nec lapis lanam fert; nec huic morbo caput crescat, aut, si creverit, tabescat*." In cases of enlarged uvula, a grape was given, with the following sentence thrice uttered, "*Uva uvam emendat*." As an efficacious cure for the colic, a gold plate was to be worn with the following characters inscribed thrice upon it, in three successive lines, L*MØRJA. Severus Samonicus is

* Another explanation, savouring of rationalistic pravity, was mentioned by a lady friend of Dr. Burney, the musician. She remarked that the only wind which enabled a ship to land passengers at St. Kilda was a N.E. wind, to the severity of which the occurrence of the catarrhal epidemic might be ascribed. Of the fact itself the lady does not appear to have entertained the smallest doubt, and she says the explanation was suggested to herself by a clerical friend.

* This reminds me of a novel I read many years ago, in which a fair homœopathist is introduced as recommending that whoever gets a grain of dust in his eye should take one globe of helladonna of the thirtieth dilution, which will set him all right at once, provided the grain of dust be simultaneously extracted.

said to have been the first to recommend the famous Abracadabra (the name of a Syrian deity) to be written thus :—



on paper, and suspended from the neck on a linen thread and worn as a cure for a kind of ague. This word was altered by the Jews into "Abracalan." The word "Abraxas," if written in a circle, was believed to hinder flies coming within the circumference. Coming down to the fourteenth century, we find most extraordinary notions broached in the *Rosa Anglicana* of John of Gaddesden, one of the most distinguished physicians of his age. He is honourably mentioned by Chaucer, and enjoyed the distinction of having been the first Englishman who had held the appointment of Court physician in his own country from the time of Edward the Confessor. So highly did his contemporaries appreciate his merits that he was rewarded with a prebendal stall and the professorship of medicine at Merton College, Oxford. His *Rosa Anglicana* was not merely deemed a masterpiece in his own time and country, but held in such high esteem abroad as to have been printed in Pavia as early as 1492, and repeatedly afterwards at Venice, Augsburg, and Naples. It is true that some of the utterances of the English Rose are calculated, to use the words of Gibbon on another subject, to "provoke a smile from the young and a blush from the fair," but even in the following Bowdlerised form they are sufficiently entertaining.

We are taught, then, that brandy is a polychrest, that swine's excrement is a sovereign remedy for hæmorrhage, that dislocations of the vertebræ are to be cured by means of emollient plasters on which a leaden plate has been laid, and that a man who had been blind for thirty-five years had his sight restored by drinking a vinous tincture of fennel and parsley. The following words, if written with blood upon the patient's forehead, will check epistaxis :—"DEUS, Qui solo tactu fimbriæ Tui vestimenti mulierem in fluxu sanguinis sanare dignatus es; Te suppliciter oramus, Divine JESU, Qui Solus languores sanas, ut fluxum sanguinis pro quo vel pro qua preces effundimus restringere et sistere facias, dexteram pietatis Tuæ potentiæ extendendo. In nomine Patris, et Filii, et Spiritus Sancti. Amen. Paternoster Ave Maria." Another plan is, let a drop of the blood fall upon a flint; when that drop begins to dry the epistaxis will cease. Or, go to some place where blood-root (sanguinaria) grows, say three Paternosters and as many Aves, and repeat the following words :—"Te quasumus, famulis Tuis subveni, quos precioso Sanguine redimisti;" then gather one or two plants, or, if you pluck several, repeat the prayers, then tie the plants round the patient's neck or limbs, and they will most certainly check the hæmorrhage. Too profound sleep is to be cured by placing a nightingale's heart or eyes under the patient's pillow. A sponge steeped in a mixture of vinegar, roses, wormwood, and rain-water, and laid on the stomach, will check vomiting and purging. Headache is to be cured

by the following device :—Take an earthen vessel, the bottom of which is perforated with many holes of such a size that an ear of corn might be inserted in each hole; then fill the vessel with water; suspend this in the patient's room, with a broad basin below it; a somewhat musical fall of the drops of water will take place, which will cool the air and assuage the patient's pain. A "digestive drink" is to be concocted of the following ingredients :—*Apium*,* *petroselinum*, endives, scolopendron, chicory, liverwort, *scariola* (whatever that may be), lettuce, maiden-hair, plantain, ivory-shavings, sandal-wood, violets, and vinegar. Soot and ivory-shavings are first-rate remedies for infants, and may be given through the mother if the patient is not weaned. Boys of ten or twelve years of age must very rarely indeed get violets, "because their stomachs are weakened by their humidity and inordinate gulosity, since they think of nothing but eating." These unlucky predecessors of Oliver Twist are to be purged by means of *mouse's excrement*, which may be administered in an apple, or in milk, or, mixed with butter and inserted in a large nut, placed over the umbilicus. The intestines of the fair sex are to be worked by means of a decoction of fennel, parsley, endive, taraxacum, scolopendria, sandal-wood, melons, anise, carraways, and several other herbs which I cannot identify. But we are told at the same time that chamomile will do nearly as well, as the author had frequently found in the case of "the aged and the poor"; so, presumably, the chief use of the complex prescription is to swell the doctor's bill. The milk of the human female is useful as an application to the forehead in cases of insomnia. For delirium the same is useful as an application to the head, where the further application of the bodies of dogs ripped up through the middle, or of cocks similarly treated, is recommended. As a cure for toothache, suspend the root of *Apium* to the patient's neck, write certain sacred words, with a cross between each, on his jaw, and "then the pain will cease immediately." No one will suffer from toothache on a day when he has prayed to the virgin saint Apollonia, or to St. Nicholas. Or draw certain characters on parchment or tablets, and let the patient meanwhile touch the aching tooth with his finger. Or, again, "let the centipede which rolls itself into a coil on being touched be pricked with a needle, then let the aching tooth be touched with this needle, and the pain will cease." Or, "upon any day when the patient is hearing mass, let him, during the reading of the Gospel, say a Pater-noster and an Ave for the souls of the father and mother of St. Philip, and he shall not only be cured of any pain which he is suffering at the time, but also shall be free from toothache for the rest of his life." *Apropos* of dislocation of the jaw, John of Gaddesden tells us that the custom of blessing a person who had just yawned arose from the act of yawning sometimes causing this unlucky accident, which the benediction was supposed to avert.

There are some odd remarks about sterility; one cause of this in the male is said to be eating glow-worms. The following are adduced as the chief causes of sterility in women :—Drinking cold water, eating lettuces, eating a bee or the bone found in a stag's heart, wearing agates, suspending *scolopendria* over the couch, walking over the menstrual discharge of another woman, *anointing herself with the same*, eating a mule's heart, applying a snail's horns to the groins, injections of mint. If a pregnant woman eats salt the child will be born without nails. The cure is to be effected by "comforting" the head with musk, laurel leaves, ambergris, chamomile flowers and oilanum, the liver with ivory shavings, lettuces, sweet almonds, rhubarb and whey. The heart is to

* *Apium* is often mentioned by John of Gaddesden. He does not seem to have meant common parsley, but, perhaps, *conium*, or *althusa cynapium*, or some other umbellifer.

be "comforted" with gold and silver, borage, crocus, ambergris, citrons, and cubebs. Green lizards are to be eaten in spring.* Camel's milk, assafoetida, the seeds of cabbages, nettles, mustard, and lupines are prime remedies; so also are the body of a fish dried and powdered, the roe, the eggs of hens, pigeons, and ducks; and it is advisable to eat sparrows and "unceasingly to drink milk instead of water." In order to determine which of the spouses is at fault in the case of an unfruitful marriage, two new earthen vessels are to be taken, and some bran placed in each. The husband then micturates into the one and the wife into the other; at the end of fifteen days worms will be found in the urine of the sterile person. If a sterile woman micturates over mulberries they will be found withered at the end of three days. Rue is said to be an antaphrodisiac in the ease of men, but to increase the fertility of women.

Our author's remarks on epilepsy are highly entertaining. First of all we have a real etymological curiosity in the derivation of the word, which, it seems, comes from one Greek and one Latin word—*ἐπι*, above, and *laedo*, I injure—i.e., an injury of the head or upper part. The following are among the extrinsic causes:—A south wind, a north wind occurring after a south, eating leeks, onions, apples, or figs, looking at whirling objects, turning round in a circle, the sun and moon. Boys are attacked when the moon is in her first quarter, youths in the second, old men in the third, phlegmatic persons and women in the fourth. Anyone who puts on the skin of a newly-slayered goat, or is fumigated with the horns and hoofs of that animal, becomes epileptic on the spot. A pregnant woman attacked with epilepsy will recover on delivery. A child begotten at the menstrual periods, if he is himself epileptic, is incurable. Wild rue or spikenard inserted into the nostrils will at once cure the fit, and as soon as the fit is over the patient is to swallow a spoonful of his own blood. The bladder of a boar is to be taken full of urine, dried in an oven, and administered to the patient daily, "if he is rich." If he is poor, pæony seed in decoctions of hyssop will do. Ale containing a mouse's ear may be administered during the paroxysm. The following process is recommended for youths who are either possessed, lunatic, or epileptic:—"If the boy's parents are alive, let him and them fast three days, and then let them take him to church if he is old enough; then, on a certain Friday, let them go to hear mass, and let them do the same on Saturday; on Sunday let the good religious priest read a certain portion of the gospel over the patient's head; let the patient write this out devoutly and carry it about his neck, and the cure is complete." A child to whom, previously to suckling it, the brain of a she-goat has been given, will never become epileptic. A perfect cure will be effected by hanging from the neck a conglomeration of pæony, pellitory, the hairs of a white dog, and the stones found in the stomachs of swallows. Red coral worn round the neck is useful, as is combing the hair with a gold or ivory comb. The patient should wear gold rings on his neck and fingers, and eat goat's flesh, mutton, veal, young hares, scaly fishes, lettuces, spinach, and coriander. Other prime remedies are weazle's blood, the blood of a red-haired woman, and powdered human bones.

The *antilyssus*, or cure for the bite of a mad dog, inserted in the London Dispensary by Dr. Mead as late as the year 1721, is hardly less absurd than any of the above doctrines of our old fourteenth-century physician. It is as follows:—Two oz. of the *lichen cinereus terrestris* (a kind of liver-wort), powdered and mixed with half the quantity of black pepper;

of this *ziss*. is to be taken four mornings successively, fasting, in half a pint of milk; after having taken the four doses, the patient must be dipped every morning, fasting, for a month, and then dipped three times a week for a fortnight longer.

It is well known that the belief in the efficacy of the royal touch as a cure for scrofula lasted till late in the eighteenth century, Dr. Johnson himself having been touched by Queen Anne. A few years previously, the poet Dryden evinced his belief in the applicability of astrology to prognosis, if not to actual medical treatment, in a letter to his own sons, in which he thus expresses himself:—"Towards the latter end of this month, September, Charles will begin to recover his perfect health, according to his nativity, which, casting it myself, I am sure is true."

CONDENSED MILK.

Paper read at an evening meeting of the Harwick Pharmaceutical and Chemical Association on December 2, by MR. T. MABEN.

CONDENSED MILK occupies an important position in the dietetics of the age, and, though its introduction, at least in the forms in which we are now accustomed to it, is, comparatively speaking, somewhat recent, the industry has already assumed enormous proportions. The modern method of condensing milk was originated by an American about thirty-five years ago, though it was some ten years later before it came to be considered a practical success. But the idea of preserving milk by concentration was by no means new, as, according to Marco Polo, the Chinese Tartars were, so far back as the thirteenth century, in the habit of preparing a condensed milk which differed from that now in use chiefly in this—that the fat was made use of for butter, while the preserved milk consisted simply of dried casein, milk-sugar, and mineral matter.

The processes for preparing condensed milk have been greatly improved upon of late years, and the methods given by some writers are probably now quite antiquated. The following epitome of the process, as described in 1872 by Mr. Willard, of Cornell University, New York, may be of some interest:—"The milk, when received at the factory, is first passed through a strainer to the receiving-vat; from this it is conducted off, going through another strainer into the heating-cans, each holding about 20 gallons. These cans are set in hot water, and the milk held in them till it reaches a temperature of 150° to 175° Fahr.; it then goes through another strainer into a large vat, at the bottom of which is a coil of copper pipe through which steam is conducted, and here the milk is heated up to the boiling-point. Then the best quality of white granulated sugar is added, in the proportion of 1½ lb. of sugar to 1 gallon of milk, when it is drawn into the vacuum-pan, having a capacity of condensing 3,000 quarts or more at a time. The milk remains in the vacuum-pan, subjected to steam, for about three hours, during which time about 75 per cent. of its bulk in water has been removed, when it is drawn off into cans holding 40 quarts each. The cans are only partially filled, and are then set in a large vat containing cold water, the water being of a height equal to that of the milk in the cans. Here it is stirred until the temperature of the condensed fluid is reduced to a little below 70°; it is then turned into large drawing-cans with faucets, in order to facilitate the filling of the small cans, holding 1 lb. each, which are then immediately soldered to exclude the air."

If this represents the actual process as now carried on, it effectually disposes of the allegation so frequently made, that a portion of the cream is taken from the milk before condensation. Of all the condensed milks I have examined there is only one in which there is the slightest ground for the suspicion that a portion of the cream had been abstracted, and, generally speaking, I believe that condensed milks are perfectly reliable so far as the relative proportions of cream and casein are concerned.

Condensed milk is also sent into the market without any added sugar. One practical difference between the sweetened

* Lizards were formerly much esteemed in medicine. The skink, a small lizard found on the banks of the Nile, had a high reputation as a diuretic and alexipharmic. It formed an ingredient of the celebrated Mithridate, or Confectio Damocratis.

and unsweetened milk is that the former keeps good almost indefinitely after the tin has been opened, whereas the latter must be used up immediately, otherwise it is certain to go bad.

Having, during the past year, had considerable experience with the use of condensed milk as infants' food, I have been at some trouble to go carefully into the whole question, and as I am not aware that any comparative statements have ever hitherto been attempted, save on the most superficial bases, I am not unwilling to put my results into a somewhat permanent form.

In the first place, I was naturally anxious to secure the best milk, and for that purpose I—with the assistance of Mr. Dechan, without whose constant presence in the laboratory it would have been quite impossible for me to have overtaken the work—undertook the analysis of a number of the best brands in the market, both sweetened and unsweetened, representing Swiss, English, Irish, Canadian, and Norwegian manufacture. As the results of our work in this direction may be of some interest, I here insert them in a tabular form, omitting, for obvious reasons, the name of each brand. They are classified in what seems to me the order of excellence—that order depending on the combined weight of casein and fat. The milk-sugar is calculated from the quantity of casein present. These—the milk-sugar and casein—usually occur in the proportion of about 4.0 to 4.5, but, as it is probable that some of the latter is lost in the process of condensation, I allow 5 parts of milk-sugar for every 4 of casein. A mean has been taken in each case, of two or three, and, in some instances, six, analyses.

COMPOSITION OF VARIOUS BRANDS OF CONDENSED MILK.

Sweetened.

	Casein	Fat	Milk-sugar	Cane-sugar	Salts	Water	Specific Gravity of a 20-per-cent. Solution
A	11.5	10.5	14.4	34.5	1.6	27.5	1.0487
B	11.8	9.6	14.7	33.8	1.8	28.3	1.0444
C	12.12	9.0	15.2	34.4	2.03	27.25	1.0484
D	12.0	8.0	15.0	32.9	1.9	30.2	1.0484
E	11.3	8.6	14.0	36.0	1.6	28.5	1.0492
F	11.5	8.2	14.4	35.0	1.4	29.5	1.0485
G	12.0	6.7	15.0	36.0	1.5	28.8	1.0500

Unsweetened.

	Casein	Fat	Milk-sugar	Salts	Water	Specific Gravity
H	11.0	10.5	12.5	2.0	64.0	1.0980
J	9.0	8.25	15.75	2.0	65.0	1.0974
K	8.2	8.3	13.0	1.6	68.9	1.0819

From the first we had been using milk E, but we subsequently adopted one of the other milks, and have had no reason to regret having made the change.

Of the unsweetened milks, the only one that I can regard as really containing no added sugar is that marked H.

The process adopted in the analysis was substantially that given in a paper on milk analysis by Mr. Dechan and myself, which was published in the *Analyst* for last October. The only difficulty exists in the drying in order to ascertain the percentage of moisture; the large proportion of cane-sugar renders it very difficult to drive off the water, and, as a consequence, the process from first to last is exceedingly tedious.

There has always been considerable difference of opinion regarding the use of condensed milk as a food for infants, and many medical men are strongly opposed to its employment, especially in the sweetened condition. The question has frequently been discussed, and some months ago an interchange of medical opinion again took place in the columns of the *British Medical Journal*. To one of the letters that therein appeared (June 28, 1884, page 1285), viz., that of Dr. O. Davies, I shall presently refer in some detail. Acting on the suggestions contained in these communications, I was induced to consider the advisability of giving up sweetened condensed milk altogether, in favour of the unsweetened; but, on

going into the question, I found that, unless milk-sugar were used to bring up the carbohydrates to the normal of mother's milk, there would be no advantage; while, in any case, a great amount of extra labour would be entailed. Moreover, the question of expense, though probably, in the circumstances, not of so much consequence to me, would weigh very considerably with many heads of families, who would probably think twice before spending 1s. a day on unsweetened milk and milk-sugar, or 9d. if cane-sugar were used, when, at the utmost, 4½d. per day would amply suffice for the cost of the sweetened milk.

Before a proper comparison can be instituted between the different substitutes for mother's milk and that milk itself, it is absolutely necessary to have some idea of the relative quantities of solid nourishment contained in each of these, and I propose, therefore, to give the results of my calculations in the direction of at least an approximately correct series of figures.

In the letter to which reference has already been made, Dr. Davies states that "it is estimated that a healthy woman gives 3 pints of milk in twenty-four hours." He does not say, and I have no means of knowing, whether this is simply the estimated average; but we may assume that it is so. It is extremely difficult to fix the composition of woman's milk, since not only the quantity but the quality of the milk depend on such a variety of circumstances that no two women will give milk of the same composition. Very variable results have been obtained by different analysts, and in order to be as fair as possible I have taken the mean of four analyses, from which I find that woman's milk may be represented as containing milk solids in the following percentages:—Casein, 2.63; fat, 3.0; milk-sugar, 5.7; and saline matter, .2. From these figures we can readily calculate the amount of solids in 3 pints of milk.

There is no difficulty in finding the percentage of solids in diluted condensed milk, but there is considerable difficulty in knowing to what extent condensed milk ought to be diluted. The Anglo-Swiss label recommends that, for infants, the milk should be diluted with from 7 to 14 parts of water; the Avenicum says 7 to 10 parts; the Scandinavian, 10 to 15 parts, and so on; the idea being that the milk should be used weaker at first, and gradually increased strength. According to Dr. Davies, there is no evidence to show that a woman's milk is stronger at six months than it is at one month after parturition, and, consequently, he prefers to use milk of a uniform strength all through. After some tentative experiments we decided to dilute the sweetened condensed milk in the proportion of 1 to 11 parts of water, and that strength has been adhered to, from first to last, with excellent results. I have noted the quantity of milk used each day, the average being as nearly as possible eight tins in thirteen days for each child, and from this we can calculate the solid nourishment taken every twenty-four hours. As a rule, nurses give the milk very much stronger than 1 to 11. I know of no instance in the circle of my personal acquaintance where so weak a milk is given, but I do know of several where children of six months were allowed as much as a tin a day. At this rate, we need hardly wonder if medical men have sometimes had cause to find fault with its use.

The main purpose of Dr. Davies' letter was to condemn sweetened, or at least to recommend unsweetened, condensed milk. His words are:—"With regard to condensed milk, the 'First Swiss Brand,' that is, the unsweetened milk (the only kind that should be used), is four times as strong as the ordinary milk from the cow, therefore, a tin would be equivalent to a quart of milk. A tin a day is about what should be given diluted with five times its bulk of water." As each tin contains about 11 oz., we can readily find the proportion of solid for each twenty-four hours where this quality of milk is used. (The notion that condensed milk equals four times its bulk of cow's milk is very common, but also very erroneous. Neither the "first Swiss brand" nor any other brand that I have met with contains anything like this strength. It is nearer the mark to say "three times as strong," and some are not even so strong as that.)

Again, some medical men strongly recommend milk from one cow, or mixed cow's milk, either of its natural strength or diluted in different proportions with water. There is the same difficulty in getting at a reliable standard for the composition of cow's milk as in woman's milk, but the variation in the analyses of the former are not so marked. I have

taken the mean of the results obtained by four eminent chemists, and this gives the composition of the solids of cow's milk as follows:—Casein, 4.68; fat, 3.75; milk-sugar, 4.26; and salts, .62 per cent. From these figures I get the quantity of milk solids as in the case of the other milks.

The following table expresses the estimated quantities in ounces of the various milk solids taken by an average child in twenty-four hours, when fed on mother's milk, condensed milk, cow's milk, and mixtures for cow's milk and water.

	Mother's Milk, 3 Pints	Sweetened (A) Condensed Milk, 3½ Pints	Unsweetened (H) Condensed Milk, 3½ Pints	Pure Cow's Milk, 3 Pints	2 Pints Cow's Milk, 1 Pint Water, 3 Pints	Equal Parts Cow's Milk and Water, 3 Pints	1 Pint Cow's Milk, 2 Pints Water, 3 Pints
Casein ..	1.57	1.12	1.22	2.8	1.87	1.4	.93
Fat	1.8	1.04	1.15	2.25	1.5	1.12	.75
Milk-sugar	3.42	1.41	1.37	2.55	1.7	1.27	.85
Mineral matter }	.12	.15	.22	.37	.24	.18	.12
Cane-sugar	—	3.39	—	—	—	—	—
Total solids	6.91	7.11	3.96	7.97	5.31	3.97	2.65

It is hardly necessary for me to analyse this table. Each one who has an interest in the question can do this for himself and draw his own conclusions. It is very evident, however, that, as they stand, the milk that comes nearest the mother's milk in the total amount of solids is the sweetened condensed milk. The milk that approximates most nearly in the quantities of casein and fat is the mixture of 2 parts cow's milk and 1 part water, but this is, of course, deficient in the saccharine principle, and requires the addition of either milk-sugar or cane-sugar to the extent of 1½ oz. per day. The deficiency of casein and fat in the diluted condensed milk could be got over by making the milk stronger, that is, by adding less water, but this increases the quantity of cane-sugar also, which is undoubtedly not desirable. As compared with mother's milk, even the best of these substitutes is no better than an approximation, but there are several reasons why condensed milk should have the preference over ordinary cow's milk.

Objection is frequently taken to the use of sweetened condensed milk, and from various standpoints. For example, we are told that the excess of cane-sugar decomposes in the intestines and forms lactic acid, which gives rise to irritation and diarrhoea; but this may be readily obviated by a more or less liberal allowance of lime-water, this being particularly necessary during teething-time, when the natural tendency is for acid secretions to be formed. We are further assured that ossification is retarded by the use of this milk. The following sentences are quoted as an example of a common line of argument from a work intended as a text-book for students, and published so lately as this year. The author says:—"Condensed milk cannot be regarded as a model food in the same way as pure milk, for the proportions of heat-giving and nitrogenous matters are too high. Children fed upon it fatten rapidly, but, owing to the comparatively small quantity of saline matter present, the bones are only imperfectly formed. Generally a weak state is produced and a predisposition to disease." With reference to these statements, it is obvious from the tables I have given that the nitrogenous matter is not too high—on the contrary, it is rather low; and that the saline matter is not present in "comparatively small quantity," but, as compared with human milk, in large quantity. The idea expressed in the last sentence is also very common, but I would be glad to see the statistics on which it is based. I find that medical men themselves can rarely point to a single case among the hundreds that pass through their hands and say, "That child has been injured by the use of condensed milk." My own observation leads me to believe that children fed on condensed milk are quite as healthy and as able to resist disease as those fed on ordinary cow's milk, and while I am not at all inclined to regard the former as a perfect food, I prefer it to the latter, even

when that is mixed so as to be brought to the nearest possible approximation to human milk, for several reasons.

Condensed milk is more digestible than ordinary cow's milk—a fact which is admitted even by those who say it should not be used. It is less liable to turn sour in the bottle, and how great a boon this is is known only to those who have to do with feeding-bottles. It is less liable to decompose in the stomach. A medical friend informs me that he frequently finds that children fed on cow's milk are troubled with flatulency, diarrhoea, green stools, and want of health generally, and that, on changing the food to condensed milk, these symptoms at once disappear, and a most healthy condition of body is induced. Condensed milk is less liable to vary in composition and more likely to be pure. It is well known that the quality of cow's milk varies with the food supplied to the cow, and as in these days it is often the main object to have quantity, quality is frequently at a discount. Besides this, the change of a cow, the introduction of a new cow into the dairy, the use of milk before it is quite free from the colostrum—all these have often been accompanied with dangerous results. Now this cannot happen with condensed milk. It is in the interest of the dairymen themselves to use the richest milk for condensing purposes; the cows are fed on Nature's food, whether in the green Swiss valleys or the Norwegian dals, or "in the pastures of the far-famed Acadia of Longfellow's 'Evangeline,'" as one advertisement sets forth in poetic language; and, if due care is taken to mix and properly condense and preserve the milk, the chances of variation or impurity are indeed few and far between. The conclusion, therefore, to which I arrive is that, when mother's milk is not available, a good sweetened condensed milk is the best substitute, and though it is not by any means a model food, it is not quite so unsatisfactory as some authorities would have us believe.

P.S.—Since the above was in type, I notice in the *Chemical News* for December 5 the first instalment of a very complete paper by Professor Albert Leeds, on "The Composition and Methods of Analysis of Human Milk." So far as it has gone, this valuable communication contains nothing that affects the tables I have drawn up. The percentage of ash in the sample with which Professor Leeds experimented was 0.21, which very nearly corresponds with what I have given as the mean of four analyses, viz., 0.2, and the other figures, as stated above, may also be accepted as giving an equally reliable average.

BANKRUPTCIES AND LIQUIDATIONS.

GEORGE MARRACK TREVASKIS, Chemist-druggist, 50 Union Street, Plymouth.

At a meeting of the creditors in this estate held on November 24 a statement of affairs was presented, showing liabilities of 505*l.*, all to unsecured creditors. The assets included book debts (good), 3*l.* 5*s.* 3*d.*; stock-in-trade, 60*l.*; furniture, 15*l.*; other property, 30*l.*; total, 108*l.* From this had to be deducted 30*l.* for rents, rates, taxes, and wages, leaving the available assets 77*l.* The largest creditor was the debtor's mother, who claimed 300*l.*, money lent. The debtor had been in the business three years, having bought it of a Mr. F. Hawkins for 170*l.* The debtor estimated that he gave at least 100*l.* too much for the business, and that he had lost 140*l.* on realising the stock-in-trade, having given 200*l.* for it. He further estimated that he had lost 60*l.* a year in working the business. He attributed that loss to the heavy rental and expenses and depression in trade. There was a promissory note given by the debtor attached to the proof filed by his mother, who, it was understood, had actually mortgaged some of her own property in order to raise the 300*l.* she had lent him. The debtor made an offer of 4*s.* in the pound, the first instalment to be paid within one month of the date of approval of the composition by the court, and the second within six months from that time.—The composition was accepted.

PATENT MEDICINE PROPRIETORS AND THEIR VIEWS.

THE proprietors of patent medicines have been rather severely handled of late, and their proceedings have been discussed in many quarters. We thought it might be interesting to hear their views generally, and with this object we asked one of our representatives to call on a few of them, and ask them to speak for themselves. In all cases he was received courteously, but several gentlemen did not feel inclined to offer any remarks for publication. We had intended to make more calls, but time failed us to get farther than we have done at present.

A proprietor who desired that his name should be withheld, thus expressed himself:—

There may be some need for legislation, because there are several anomalies that ought to be abolished in regard to the sale of patent medicines; but I demur to the assertion that it is required because of the enormous mischief annually wrought by the use or abuse of the medicines.

I have been at some trouble to look into this question, and have noted the tirades of some coroners. I have no hesitation in saying that the number of deaths to be directly, or even indirectly, attributed to the use, or excessive use, of proprietary articles is marvellously small. The fact is that a great deal too much is assumed. Let an inquest be held over a man, and the chances are that a bottle of patent medicine half or a quarter full, say of chlorodyne, will be found in the house. The coroner at once jumps to the conclusion, unless there is evidence given directly to the contrary, that death arose by poison, from an overdose of chlorodyne, and proceeds at once with bitter prejudice to condemn it, and all medicines of a similar kind. Need it be said that, had an ordinary prescription of the doctor been found which contained, it may be, a far greater amount of poison, under similar circumstances, no remark would have been made upon it. That would, of course, have been *all right*, although, as a matter of fact, it might have been *all wrong*, as often occurs in making up prescriptions, either from carelessness or otherwise on the part of the doctor or the chemist.

Proprietors, for their own sakes take good care not to overload their preparations with an undue amount of deleterious, not to say poisonous, constituents.

There is one strong argument in favour of patent medicines, and that is their handiness at all times—especially in rural districts, where there is neither a chemist nor a doctor for miles—and many a man, I am perfectly certain, has saved himself both money and pain by treating himself with some medicine ready at hand and prepared with a view of curing his ailment.

This reminds me of the proposal of the Pharmaceutical Society to have all the medicines containing a trace of a scheduled drug labelled as poison, and, as such, to be confined to the chemist for sale, as all poisons are now supposed to be confined, under great restrictions. But there are serious objections to that. The first is, that it would practically—if carried out as it ought to be carried out—include the whole range of proprietary articles, and thus brand all as dangerous; and the second is, that by placing such a monopoly in the hands of the chemists it would enable them, if they liked, to crush the sale of the medicines, and help them to dispose of their own preparations, which, after all said and done, are as much proprietary articles as the most well-known and widely-advertised. Of course, I know the chemists do not like the price at which they have to sell proprietary medicines now, to keep pace with the competition of the stores and grocers, and I should be glad if some means could be devised for restoring them their profits, if they would only act fairly; but when they depreciate the qualities of a proprietary article which they have to sell at cutting price, in order to dispose of their own preparations, they act unfairly and drive away all sympathy one would otherwise feel for them.

You ask me about the stamp, and should it be repealed? I don't think a case has been made out by its opponents. It is said that it operates hardly on the public. Well, supposing it does, what tax is there that does not? Then it is said that some proprietors unduly advertise the fact of the Government impress being found upon their bottles, with the intention of misleading. That is done, I know, but it ought not to be. Yet, after all, I question if it is not a useless

expenditure of words. People are not so ignorant on these things as they were, and are not readily taken in. Then, on the other hand, I don't see the least prospect of the tax being repealed. It is money easily collected, and the Government is not in a position to give away money just now, nor is it likely to be. It is given out that the ordinary drug trade suffers, especially because foreign drugs are taxed on being brought into this country and used for dispensing purposes. That is not so; the boot is on the other leg, and it is we in England, and not the foreigner, who have occasion to complain. There is one advantage in retaining the tax, and, I think, an important one, viz., that it prevents the market from being flooded with a number of worthless articles, and which would be sold at a low price, and in small quantities.

Now, as to what is to be done is a question very hard to answer. The Pharmaceutical Society look at it from their point of view, which, of course, is not a disinterested one, and we look on our side. Generally speaking, I think it might be a fair thing if a committee of doctors and of chemists was formed, to which all patent medicines introduced after the institution of the committee should be submitted, and upon a certificate from that committee the thing should be allowed to be sold. But all proprietaries existing previous to the committee should remain unaffected. Vested interests would not be disturbed, and no injustice done.

Mr. Geo. R. Barclay, of Messrs. Barclay & Sons, Farringdon Street, was the next gentleman interviewed. He represented the views of his firm, and, in an *un-officio* manner, the views of the Patent Medicine Proprietors' Association, of which he is the Hon. Secretary.

We are given to understand (he remarked) that the only ground upon which legislation is asked for is the protection of the public from poisonous compounds, because it is asserted that the great bulk of patent medicines really belongs to this category, and as such ought to be included within it. Of course, it is very easy to see what this means. The protection of the public is but a secondary consideration. The real question is the protection of the chemist. Now I have not the least objection to protect the chemist in his legitimate business, provided he in return will act fairly, and give up the practice which seems to be in vogue, of depreciating any article his customer asks for, in order to substitute something of his own. The chemist is a man of education, and many of his earlier years have been spent in preparing himself, by way of study and otherwise, for his business; and it seems a little hard that, after he gets through his examinations, and into business, he should be deprived of his good and legitimate profit on some portion of his sales. But the chemist has very largely contributed to the lack of sympathy which most patent-medicine proprietors would otherwise have evinced for him by the action I have just referred to.

As to the question of labelling *all* medicines that contain even a small amount of poison, nothing, I think, could be more ridiculous, nor less likely to meet the necessity of the case. In the first place, it would familiarise the public with the word, and the warning now associated with it would be almost entirely lost. Then, concerning the doctrine that patent medicines are poisonous and deadly in their use, I protest emphatically against any such thing. The mere assertion, based upon the barest circumstantial evidence, will not stand a superficial test. But, assuming that one case occurs out of a million patents consumed, is it reasonable, or fair, to condemn the whole number of medicines, any more than it would be fair to condemn the whole of the canned-food trade because now and again mishaps occur from carelessness or the like in connection with their use? Or, if it would be fair, then why not condemn what a chemist puts up in the ordinary course of his business, or the prescription of the physician, which often contains more or less of poison?

If, however, a death does occur in connection with a patent medicine, however remote or slight the connection may be, the jury, as a matter of course, after what the coroner has said, add a rider to their verdict against the patent medicines of the usual character we all so well know by this time. But I have been at some pains to analyse the deaths from poison reported in the columns of the *Journal of the Pharmaceutical Society*, and of *THE CHEMIST AND DRUGGIST*, with the result that the number of deaths due to patent medicines can be counted upon one's fingers, whereas those resulting from

an overdose of ordinary drugs—that is, drugs sold in the ordinary way, and made up in ordinary prescriptions by chemists and doctors, and suicidal cases—can be counted by the hundred.

Only a fortnight ago a boy at Chester nearly lost his life by taking some cough lozenges which he had stolen from a chemist. Had the boy died, no doubt his death would have been attributed to a patent medicine. Yet a little examination sufficed to prove that the lozenges were not proprietary, but were received by the chemist in bulk from his wholesale druggist, and I do not think there is any proprietary lozenge of such strength as the above.

There is a very great deal to be said in favour of patent medicines. Unquestionably they meet a public want. They are convenient, they are always readily accessible, and many a man has saved himself a serious illness by the timely use of a little patent medicine, thus nipping his complaint in the bud. It cannot be said that the directions for taking are not plain enough. In all cases they are printed, and are easily understood.

If, therefore, the consumer will take more than the directions indicate, he is alone to blame. No authority whatever can blame the proprietor. This printing of the directions is a great thing for the public of all grades, and is an immense advance upon the written directions of the chemist or the doctor—written very often in a careless, undecipherable style—upon the possible oversight of some constituent of the prescription. Only this week an illustration of this was furnished in my own house. The doctor had prescribed for my little boy, and, in making up the prescription, the chemist omitted to state in the directions that the mixture was to be taken in water. It was taken without the water, according to what appeared on the bottle, and the poor child's mouth was badly burned.

Let the case be made out that our preparations (as a body of proprietors) are deleterious or dangerous, and we shall be quite willing for such legislation as may be deemed necessary. Meantime, such an allegation cannot be proved, and we are, therefore, not disposed to quietly accept the dictum of interested opponents of patent medicines, nor do I believe it to be the wish of the Government that we should. The Association which I represent is quite willing to submit to the Government its views as to what would be best to be done, inasmuch as it is generally recognised that some legislation is necessary, if only to lay the anomalies which just now are a source of annoyance and of no little confusion. *Appropos* of the Stamp Duty, I see no reason whatever why it should be repealed; and as to the doctors' suggestion that a fictitious value is attached to the stamp by a certain class, I do not believe that such is at all the fact. Indeed, I deny it emphatically. Nor is it true, as is also alleged, that we get a profit upon the stamp. So far from that being so, I believe I may say that in nearly all cases the profit upon the article is reckoned without the stamp. The Stamp Duty is prejudicial to no one, and it certainly keeps out of the market a lot of low-priced, worthless things. So far from repealing it, I should recommend its enlargement, its application to Ireland, and, instead of bringing in an easily-earned 150,000*l.* a year to the Government, it would probably realise double that sum. In enlarging it, however, there should be some provision for remedying the defects of the existing law, which are so many and so glaring as to cause immense confusion to the authorities at Somerset House, and also for removing the unfairness of allowing foreign drugs to be sold unstamped for dispensing purposes, and yet of prohibiting the use of similar British-made articles unless they pay the duty.

Mr. Wylde, of Mr. Thomas Keating's, St. Paul's Churchyard, in the course of the interview with him, remarked:—

I think it is a great pity that the Pharmaceutical Society have never shown a friendly spirit towards the patent medicine proprietors. I am a chemist, and as such have great sympathy with the trade, and would be willing to do anything for it that is fair and reasonable, but yet it seems to me that the trade expects everything, and is willing to give nothing in return. Thus, in my capacity as a chemist, and also a proprietor of patent medicine articles, I have made more than one application to the Pharmaceutical Society with a view of suggesting some solution of the problem, but at no time have I ever received the least encouragement. I believe I am quite correct in stating that it is only since the

prices have been cut so low, on account of the competition with stores, &c., that chemists have seriously complained. Before, they were quite willing to sell proprietary articles, and upon which they got a fair profit, and I should be pleased to see the whole of the proprietary trade restricted to them, but it must be the *whole*, not a part. Yet to gain this will be a great difficulty, and can only be effected by the Pharmaceutical Society co-operating with the proprietors, but *never* without.

The absurdity of the late proposal to label any article with the smallest quantity of poison in it as "poison" is too great to be discussed, and were it seriously entertained it would lead to endless difficulties, for the obvious reason that almost everything contains more or less a poison, not excepting many of the physicians' prescriptions. But apart from this, and looking at the matter as it now stands, there are reasons, against placing the exclusive sale of patent medicines in the hands of chemists, as such a labelling would practically amount to. I refer to the reprehensible practice of some chemists making their own preparations and crying them up, so as to practically give the patent medicines asked for a bad name. They get a better profit on their own mixtures than on those of other proprietors, and it would be unfair, to put it mildly, to handicap proprietors in this way. Nevertheless, I am prepared to run the risk if the Council of the Pharmaceutical Society will only do their part.

Moreover, I object to the administration of any Act being vested in the Pharmaceutical Society, because I do not think from past experience that they are always as broad in their views or interpretations as they might be. Take a simple illustration which just now occurs to me. There is an American article called "Rough on Rats," which I believe is simply arsenic coloured, or, perhaps, pure arsenic. This is now being sold and advertised in this country broadcast. I believe it has caused many deaths by misadventure, and I have twice desired the Pharmaceutical Society to take cognisance of it and to warn chemists. But it absolutely declines to do anything of the sort, and the thing goes on unmolested. And yet that Society is so down upon patent medicine proprietors as to want to brand all medicines as poisons, and, therefore, if the label means anything, to be avoided. But, again, I have in my office at the present moment four samples, and I could get forty others by this time to-morrow, of preparations which are emphatically and distinct evasions of the law. Yet the secretary of the Pharmaceutical Society actually advised that these articles need not be labelled, as the law clearly directs. What can be expected, therefore, of such a Society, but that its partial conduct under existing conditions would be continued, if not intensified, were it vested with authority to carry out or administer any Act the Government may be disposed to carry?

It is to be regretted that antagonism exists between us, or rather on the side of the Pharmaceutical Society, but I do not see how it is to be avoided so long as that Society maintains the position it has assumed. As to the advisability of legislation we are all fairly agreed, and the proper course to be adopted is for a conference between the Society and ourselves, at which, by mutually giving and taking, a satisfactory basis could be arrived at. But this the authorities in Bloomsbury Square have never been willing to do. Their policy has been rather to ignore us, and treat us as of no account. But they are reckoning without their host in so doing, and they will fail in their endeavours to get the Government to concur with them, as, indeed, they have failed already, and somewhat completely I think, inasmuch as Lord Carlingford has recognised the importance of the matter, and stated that due regard to and every consideration would be shown to our interests. It is a difficult matter to legislate upon, yet with the united action of the Pharmaceutical Society, ourselves, and the Government the difficulty would disappear, and all parties and interests affected would be fairly dealt with. It was because of the manifest attempt of the Pharmaceutical Society to injure patent medicine proprietors, whilst not in any way protecting the public, that was, in my opinion, the reason why the Government rejected the draft Bill of that Society. To legislate for patent medicines without consulting the proprietors or taking their opinions into account would be more or less a failure—a failure, I mean, more from a public point of view than from our own. In whatever legislation, moreover, that does take place, there ought not to be drawn any hard-and-fast line unless it is intended to

abolish patent medicines altogether. Were this latter done, it would only mean a revival of them in another form, most likely to the detriment of all concerned. At present they meet a distinct and public want, and must be wisely dealt with. If a Board was formed, consisting of equal nominees by the Government, from the Pharmaceutical Society, and from the Patent Medicine Proprietors' Association, and with power to regulate, not only the sale, but also the labelling of any secret or proprietary remedy, that the stamp should not be allowed to express any guarantee, and that no new medicine should be allowed except with the sanction of the Board (not an arbitrary decision), then we should be able to eliminate any unsatisfactory features. Such a board would act well in a case like this:—

In France there is an injection used to restrict child-birth. It has been attempted to induce the wholesale houses to introduce a similar proprietary article here. There is now nothing legally to prevent this; but, with a board in power, they could refuse to allow it to be sold as a *secret remedy*, and, unless sold as such, it would not pay anyone to attempt to introduce it. He would, under the ordinary law, be able to sell it, but then he would have to publish the formula.

I commend this strongly to the consideration of retail chemists. Poisons are at present a continual source of annoyance, with very little profit; and if once it becomes the fashion for proprietors to push entirely through grocers, &c., whilst chemists only sell so-called poisonous medicines, it will open to them not only that trade to a greater extent, but lead the public to go to them for all their little drug wants, which are so profitable a source of revenue.

As to the suggested repeal of the Stamp Duty, I should prefer to see it maintained. It does not operate harshly upon anyone; and although it is to be regretted that some few proprietors make too much of the stamp, I do not think that much mischief, if any, arises from it. It is a duty easily collected, and the Government are not likely to throw away so good a revenue, especially as nobody suffers. There are anomalies in the manner of enforcing the laws which operate unfairly, and these should be removed. I refer, for instance, to the sale by a chemist of his own preparation, to all intents a proprietary article, but which, not being very much pushed, is allowed to escape the stamp. Then, also, it is hardly right that a home-produced medicine should be taxed when used only for dispensing purposes, and yet a foreign medicine of the same kind may be imported into Ireland, and from thence to Great Britain, and used for dispensing purposes, without being taxed. Also, medicines exported should be stamped, and a drawback allowed on a certificate that they have been duly shipped—the principle is already carried out in America.

Mr. Jones, of the firm of Messrs. W. Sutton & Co., Bow Church-yard, said that he should object to any such ridiculous idea as labelling all patent medicines as *poison* simply because a trace of poison was contained in any or all of them. What was there in the world of medicine or chemistry that did not contain poison in some form or another, and which would work deadly results if taken in too great quantity. The instructions for taking the doses, and full directions for all purposes, are carefully printed and affixed to the bottles sent out; and if a man or woman is foolish enough to take a larger quantity, surely no one is to blame but him or herself. Then to say that patent medicines are of no use at all is to say what is not true. They have been and will continue to be an immense boon to many persons who have been unable to get other medicine or to get medical aid in a time of sickness; and whatever legislation is to be made—and for my part I do not see what there is to legislate about—will have to be done having due regard to the interests not only of the patent medicine proprietors, but also of the public, and particularly of the rural population, where in hundreds of villages neither doctor nor chemist lives for several miles around.

As to giving the chemists the sole right of selling the medicines I am very strongly of opinion that they ought to have it. In the great majority of cases they are men of education, who have been at no little labour and expense to prepare themselves for their business, and yet they are attacked on a matter, which was once a great source of revenue to them, by anybody who chooses to take up patent medicines. I say the chemist should be protected, and it is a shame that Dick, Tom, and Harry should be able to cause him any inconvenience or enter into competition with him. Every man to his business, and let the chemist enjoy

his unmolested by any adventurer who chooses to pry into the chemist's trade.

I have no faith in that doctrine that if you give the chemist his right in this matter they will join together and try and crush out the sale of patent medicines. They cannot help themselves. They have to sell what a man wants. And if I go into a shop and ask for a certain medicine, and the man begins fooling about with some preparation of his own, I should tell him he was an impertinent man, and walk out of his shop, and go to the next chemist for what I wanted. I should not in the least, therefore, anticipate any difficulty of such a kind in placing the exclusive sale in the chemist's hands.

As to the desirability of repealing the duty or stamp tax, my opinion is—certainly not. Let it be raised, if anything, or, at any rate, let it be enlarged, so as to include a good many things that are now escaping it. Nobody suffers from the tax; then why disturb it? The country must be supported and maintained somehow.

Mr. Fassett, of Pond's Extract Company, of 25 New Oxford Street, remarked:—As far as we are concerned, we are not affected by the "poison" question. If we were brought within the scope of the proposal to label patent medicines as a poison, we should strongly object to any such absurdity, as nothing, in my opinion, has ever transpired—coroners' statements and juries' verdicts notwithstanding—that would in the least justify such procedure. Moreover, if such were brought about it would do no good. The public *will have* proprietary medicines, and by a little attention to the printed instructions they would soon become familiarised with the word *poison*, and cease to regard the importance now associated with it. At the same time, I believe there are certain patent medicines which ought strictly to be included in the poison schedule; but it would be a very nice point to determine some of them, or to draw a line defining which ought to, and which need not, be so labelled.

Concerning the sale of these medicines by chemists alone, I may say that we sympathise with them, but how to assist them is quite another matter, and, after all, the question seems to be, would it be wise to give them the exclusive sale, because, is it not simply a matter of business, and the natural course of competition? We are not—and by *we* I mean here the proprietary trade—parties to the sale of our goods at cutting prices, and if a man likes to sell at cost price, as a sort of hanger-out to draw other business, how shall it be prevented? Nevertheless, I quite agree that it is hard on the chemist.

As to the Stamp Act, we suffer as a trade, I think, more from the anomalies created by that Act than from its legitimate operations. It is certainly not fair that a chemist should be allowed to sell his own preparations, which, to all intents and purposes, are as much proprietary as our own, and yet not be called upon to stamp them. The authorities at Somerset House would do a good work for the Government if they sent a man round to take note of all the unstamped proprietary articles exposed for sale in the chemists' windows, and I apprehend that instead of the stamp yielding the Government 150,000*l.* a year it would realise quite as much again.

Upon the broad question of stamp or no stamp, I have no particular views one way or the other. It would be an advantage to us in working our business if there were no stamp, for we could work with a smaller capital, and also it would save us endless trouble in fixing the stamps. The manner in which the stamps are produced is simply disgraceful. They are neither gummed nor printed straight. Why can't they be gummed like a postage stamp is gummed, and if they were only printed straight a printer's guillotine could cut them. But to attempt to do so as they are would be to cut through the middle of half of them.

Whether the stamps operate harshly or not is, I think, a matter of no consequence. It is not the poorer classes of the community that buy patent medicines. They go in for pennyworths and threepennyworths of things at the chemist's, and the people of independent means have their family doctor, who pays regular visits, whether there is sickness in the house or otherwise. It is the middle-class and fairly well-to-do people that buy patent medicines, and it is of no consequence to them whether they pay a shilling or thirteenpence-halfpenny for a bottle. If the stamp were repealed, we—speaking for ourselves now—should reduce the

price by the amount of the stamp, and nobody would be any the better off. At the same time, the Government, which cannot afford to lose the revenue, would suffer. Over the recent circular issued by the Board of Inland Revenue I had some correspondence. That circular, as you know, pointed out that all medicines brought into or sold in the country should be stamped. I pointed out to them that such a reading of the Act would be very prejudicial to the trade of the country, and that, if insisted upon, would result in driving away a large source of employment for English ships, merchants, and their clerks, and throw it into the hands of other people. Having considered the matter, I received their reply, which was to the effect that medicines could be received into and sold in this country without being stamped, if the sale was to a foreign or colonial market. This was a wise decision, but at the same time the Inland Revenue Board would not allow wholesale houses to stock imported medicines.

A member of the firm of Messrs. F. Newbery & Sons, of King Edward Street, in the course of an interview, observed that nothing, they thought, could be more ridiculous or unfair than the proposals of the Pharmaceutical Society. The very object sought would be defeated by the suggestion if carried out, as it would only familiarise the public with what is now distinctly a word of warning. "Poison!" a man would say, "That's all nonsense! I've been taking poison, then, for the last twenty years, and am no worse for it." I think, perhaps, something might be done to make more palpable than is now the case the difference between medicines which it is acknowledged contain a large amount of a poisonous drug and those which only contain a slight quantity and of a less deadly nature, and something ought also to be attempted in the way of distinguishing between medicines intended to be taken and those only for external application. This could be shown, perhaps, by the bottles and the wrappers used. But whatever is done ought to be very carefully considered and well-advised, as it affects a very large constituency of the public, as well as of patent medicine proprietors. Could not, for instance, the case of coffee and chicory be taken as an example? Where chicory is added, as everybody knows, it has to be stated on the label, and it might be possible, without publishing the formula of any medicine that contains poison, to indicate it upon the label. This would give some security, but whether it would be found practicable of course would remain to be seen; it is merely a suggestion.

Whether chemists ought to have the exclusive right of sale is altogether a difficult business. Originally, the sale of patent preparations was carried on through booksellers and newsagents, and not through chemists. Take this house as evidence. My great-grandfather was a bookseller in St. Paul's Churchyard, where the name of Newbery is still to be seen over Messrs. Griffiths & Farran's shop; and here are a number of advertisements of various specifics which appeared in the *London Chronicle* of 1759 (a copy of the journal was before the speaker), which instructed those desirous of purchasing the nostrums to repair to Mr. Newbery's shop, at the sign of "The Bible and Sun," St. Paul's Churchyard. How it came to pass that booksellers took up the business, I cannot say. If I were to make a guess, it would be most likely from the same cause that has led other tradesmen than chemists to take their sale in hand nowadays—viz., the preference the chemists give to their own mixtures, to the detriment of those the public know about and desire. It is a pity that the chemists have to meet the competition of the stores and other cutting tradesmen, but how can it be helped or avoided? Is it wise to make any enactments that would interfere with the ordinary flow of business? If it were ever intended that chemists should be vested with the sole right of sale, provision for that should have been made long ago. It is too late now, I believe.

I think it is open to grave doubt whether the trade or the public would be benefited by the repeal of the Stamp Duty. The tax is not a harsh one. It is easily collected, and the greater part of it is profit pure and simple. It has been argued by the *Times* that if a medicine is a good one it ought not to be taxed. But surely that is a fallacious argument, or, if not, why not apply it to a host of other things which are also good and likewise taxed. Nor do I think that if the tax were repealed the price would in all cases be lowered. The standard prices now are so well known, and persons have become so accustomed to pay them, that it would be thought unnecessary by the proprietors to reduce them. They might,

perhaps give a little more for the money. There are one or two well-known proprietaries which afford illustrations of this. They were originally stamped, but, following immediately upon the decision given in the Lamplough case, the proprietors ceased stamping, but the prices never came down; they still remain at 2s. 9d., and so on upwards. The Association of Patent Medicine Proprietors, of which we are members, has practically agreed upon its decision in this matter, and the Government, I have no doubt, will ask us for our views, or be ready to receive them at the proper time. But, whatever is done, there should be an effort made to remove the obstacles in the way of a fair and regular collection of the tax, for the authorities who administer the Act just now appear to be in a remarkable state of confusion and uncertainty.

Suggestions.

MENTHOL has been used with success for ring-worm, both in the form of a solution and pomade.

TO DISGUISE THE TASTE OF PARALDEHYDE.—Sutter (*Arch. d. Pharm.*) finds rum and tincture of lemon combined with paraldehyde make it palatable.

TO CURE HICCUGH, says Dr. Henry Tucker in the *Southern Med. Record*, give a little granulated sugar moistened with good vinegar. Give a few grains to an infant, a tea-spoonful to a grown-up person. The effect is instantaneous.

TO PRESERVE SOLUTIONS OF GELATINE.—A solution of gelatine may be preserved for a long period without becoming mouldy, and with no interference with its viscosity, by the addition of 8 to 10 per cent. of chloride of calcium or magnesium.—*Monit. Scien.*

FOR CHAPPED HANDS, lips, or faces there is nothing better than a mixture of equal parts of egg albumen and pure glycerine, perfumed to suit. The mixture constitutes the well-known French cosmetic, glycerine Sichel.—*Am. Nat. Druggist.*

A GREEN FOR SHOW-BOTTLES.—A correspondent of the *National Druggist* says that "a beautiful and durable green can be prepared by adding to an almost saturated solution of sulphate of copper enough of a solution of picric acid to give the desired shade, and sufficient alcohol to prevent freezing in winter.

STRAMONIUM FOR EXTERNAL APPLICATION.—Dr. H. C. Wyman recommends enthusiastically fresh green leaves of *Datura Stramonium* as an application to painful joints. An experience of twelve years with them has taught him their value. He applies them for twenty-four hours at a time, and says the relief of the pain is almost immediate.

FILTERING OILS.—A correspondent of the *Scientific American* filters oils in this way. The oil is in a shallow pan which is slightly tipped. A piece of heavy woollen cloth reaches to the bottom of the oil and hangs over the lower edge of the pan, rather lower than the pan itself. This makes a capillary syphon which perfectly filters the oil. The cloth is guided by a sheet of tin into a receiving vessel.

IMPERVIOUS CORKS.—Corks may be made impervious by soaking them—best quality—for several hours in a solution of $\frac{1}{2}$ oz. of glue or gelatin in a mixture of $\frac{3}{4}$ oz. of glycerine and 1 pint of water, heated to a temperature of about 50° C. Such prepared corks may be rendered nearly proof against acids and other chemicals if they are dipped, after thorough drying, for ten or fifteen minutes into a melted mixture of 4 parts of paraffin and 1 part of vaseline.—*Polyt. Mitth.*

A QUICK FILTER.—The following idea for a quick filter is suggested by Mr. C. F. Nixon in the *Druggists' Circular*:—"Take a clear piece of chamois skin free from thin places; cut it of the desired size; wash it in a weak solution of sal soda, or any alkali, to remove the grease; and rinse thoroughly in cold water before using. Tinctures, elixirs, syrups, and even mucilages are filtered rapidly. A pint of the thickest syrup will run through in four or five minutes. By washing thoroughly after each time of using it will last a long time.



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MESSRS. ALLEN & HANBURY'S ADVTs. { See pages 38
and 51.

SEE SEABURY & JOHNSON'S Advertisement of INDIA-
RUBBER POROUS AND SPREAD PLASTERS on page 155.

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WHOLESALE PRICE LIST OF

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Medicine Chests and Cases, Bottles, Cardboard Goods, and
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18s. per cwt. net, bag included; in 7, 14, 28, 56 lbs., 20s. per cwt., delivered free in London, and in 1 lb. Tins, 5s. per doz. BEST QUALITY; NO OIL EXTRACTED. Carefully cleared and ground so as to retain the natural colour of the Seed without being heated.

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TUSON'S DISINFECTANTS. See page 66.

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HAY'S SOLUBLE ESSENCE OF GINGER. See page 82.

HAY'S GINGER CHAMPAGNE. See page 82.

HAY'S SOLUBLE ESSENCE OF LEMON. See page 82.

EDITORIAL NOTES.

THE LOCAL GOVERNMENT BOARD
ON ADULTERATED DRUGS.

THE Local Government Board, in publishing their report on the working of the Sale of Food and Drugs Act for 1883, have made some remarks in reference to "drugs" which must be characterised as grossly unfair. From the reports of the analysts for that year, it appears that among the samples examined were 304 specimens of "drugs." Of these, 50 were returned as adulterated. On this basis the Local Government Board make allusion to the "extensive sale of drugs," which analysis shows to be not in accordance with the Pharmacopœia," and add "that a prescription compounded with such drugs may fail altogether to produce the effect which would have been produced by drugs of proper quality." This reference to prescriptions is very misleading. Its effect on persons of moderate intelligence, such as editors of daily papers, may be gauged by a note which appeared in the *Daily News* a few days since. The writer draws the inference "that once in four times, on an average, a prescription made up at a chemist's shop is not composed of pure drugs." The Local Government Board are only partly responsible for the arithmetic of the *Daily News*, but clearly they have induced an altogether unjust suspicion in the minds of the staff of the paper. The facts, read fairly, present a very different aspect. In the first place, it should be explained that the 304 samples examined were nearly, if

not quite, all "suspected" to begin with. To estimate the proportion of adulterated drugs from these 'would be analogous to inferring the proportion of crime in the country from the relative arrests and convictions. Next, it should be stated that we have here only the unchecked reports of the analysts. In many cases the vendors of the drugs alleged to have been adulterated were not even prosecuted. Lastly, and most important of all, we assert that a large number, probably the majority, of the drugs found adulterated were not sold by chemists at all. Spirits of nitre sold by grocers, paregoric without opium, and such drugs sold in little village shops, have been favourite objects of analysis, and have no doubt yielded a large proportion of the 50 cases of adulteration on which the Local Government Board have based their injurious comment. Such cases obviously have no bearing whatever on the question of the accurate dispensing of physicians' prescriptions, and no inference should have been drawn from the figures quoted without a clear apprehension of their bearing.

HYDROCHLORATE OF COCAINE.

LAST month we mentioned a circular we had just received from Messrs. Allen & Hanburys concerning this preparation. Since then it has received extraordinary attention, and the number of articles relating to it in the medical journals of this country and America is quite unusual.

Hydrochlorate of cocaine is a white crystalline powder sparingly soluble in water, but readily soluble in ether, alcohol, oil, and vaseline. Water dissolves only about 4 per cent. The alkaloid is at present very costly, 9*d.* or 1*s.* a grain, and its price is not likely to fall for a few months.

It has been introduced as a local anæsthetic for the mucous membranes. Dr. Freud, of Vienna, published in August a research on the alkaloid, which stated that it caused local anæsthesia of the tongue. Dr. Koller argued that if it deadened the sensibility of the nerves of the tongue it would have a similar effect on the nerves of the eye. After many experiments on animals, on himself and friends, and afterwards on patients, he published his discovery at the Heidelberg Ophthalmological Congress in September.

We will give a short account of the results that seem to have been obtained in various departments:—

THE EYE.—One or two drops of a 4 per cent. solution instilled into the eye cause at first a stinging sensation, lasting a few seconds. On repeating the application there is a sensation of cold, then comes a feeling of weight or tension and dryness. The eye protrudes somewhat. If the instillation is repeated the pupil dilates. Five minutes after the first instillation the cornea can be handled quite roughly, cut, cauterised with silver nitrate, pitted by pressure, without causing the slightest pain or even sensation. There is simply no feeling. When deep incisions are made, as for iridectomy, pain has been observed by some though not by others. It is as yet doubtful how deeply the anæsthetic effect can be made to extend; it passes off at the surface in about twenty minutes, and, as it apparently takes time to reach the lower structures shown by the dilatation of the pupil, it would seem that the application must be repeated to obtain the best effects. The eye remains dilated for some time, but vision is not interfered with, and the eye gradually returns to its normal state. We find reports of three cases where inflammation has occurred after the use of the drug among a very large number in which it was not observed. One patient who had undergone two iridectomies under ether had the globe of the eye excised by Mr. Carmalt Jones, under the influence of a 2 per cent. solution of cocaine. His remark was that it was a great deal better than that beastly ether.

EYELID.—Mr. Bader has crushed a tumour on the eyelid without causing pain to the patient.

THE TONGUE.—Mr. T. Smith applied a 20 per cent. solution to the tongue of a patient three times within ten minutes. He then applied fuming nitric acid freely two or three times, so as to produce a definite burn. No pain was felt during the operation.

THE NOSE.—Mr. H. J. Butlin records his own experience. He has twice had the turbinated bones of his nose burned by Dr. Semon at intervals of three weeks. The first operation caused intense pain and prostration. At the second the surface of the bones was painted thoroughly, twice over, with an interval of five minutes, with a 20 per cent. solution of the hydrochlorate. "The effect was marvellous, far more so than I—or even he, I think—expected. The burning was not felt by me more than the introduction of the brush in painting; I cannot say I did not feel the operation, but the sensation must be described as feeling, not pain."

THE LARYNX.—Dr. Semon has also removed growths from the larynx of a lady in whom, at the seven previous operations, the mere introduction of the instrument had caused alarming shocks. After painting the interior of the larynx with the 20 per cent. solution once, and waiting five minutes, he was able to introduce the instrument four times, and remove considerable portions of the growths, without the patient experiencing any pain at the moment or subsequent shock hypodermically.

Messrs. J. H. E. Brock and C. J. Arkle, of University College Hospital, have tried the effect of hypodermic injections. The effects which were common to all the injections were, smarting, followed by numbness; redness round the point of injection; in from two to three minutes, sensation to touch was diminished, to pain and temperature completely abolished. In every experiment except the last, when half a grain was injected into the forearm, the anæsthetic area was more extensive immediately above the point of injection than below. The extent of surface on which the above effects were produced was about half an inch above and a quarter of an inch below the point of injection; while for about half an inch around this area there was a slight diminution to tactile, painful, and thermal impressions. They have performed two minor surgical operations painlessly after an injection of one-seventh of a grain.

We have given only some of the more striking pieces of evidence that have been brought forward.

Dr. A. Hughes Bennett makes a suggestive remark. He says that in an investigation undertaken in 1872 he demonstrated that the physiological properties of theine, caffeine, theobromine, guaranine, and cocaine, when administered hypodermically, were to all appearances the same. "Should it be proved that they have also similar effects when applied externally to the mucous membranes, it would be of importance from an economic point of view, as cocaine is extremely expensive, while the others are comparatively cheap."

PREPARATIONS.—Messrs. Savory & Moore have introduced disks. Professor Van Schrotter gives the following formulæ for 10 and 20 per cent. solutions for use in operations on the throat:—

		No. 1.						
	Cocaine muriat.	..	..	..	..	..	grs. j.
	Aque distillat. ..	..	..	..	..	..	grs. viij.
	Sp. vin rect.	..	..	..	..	..	grs. ij.
M.	Sig. : 10 per cent. solution.							
		No. 2.						
	Cocaine muriatici	..	..	..	..	..	grs. j.
	Aq. distillat.	..	..	..	..	..	grs. iij.
	Sp. vin. rect.	..	..	..	..	..	grs. ij.
M.	Sig. : 20 per cent. solution.							

Dr. Karl Koller says, in his latest paper: "A solution of cocaine in water, up to 5 per cent., can be made without the addition of an acid. The solution is always cloudy. The addition of an acid is to be avoided, as even a very small quantity of an acid causes a very strong burning sensation. When filtered the solution becomes as clear as distilled water."

The solution has also been used with success in operations on the vagina and cervix uteri. It has been suggested for use in dental operations and toothache for deadening the sensibility of the dental pulp.

DOCTORS AND DRUGGISTS.

WE do not see that much benefit is to be got by frequent references to the well-worn theme of the relations of the medical and pharmaceutical professions. Even the complimentary view of the subject which comes forward at our pharmaceutical dinners is getting wearisome. We know by this time every possible turn of expression which can be applied to the topic; the sister professions, the handmaid of medicine, the humble sharer in the sublime art of healing, and so on. The vigorous abuse of each other which sometimes ornaments our correspondence pages, and much more frequently brightens the columns of our medical contemporaries, is more lively, but even that is wanting in freshness. The little tricks to add a few more shillings to their income which so many doctors adopt; the rash folly, and sometimes the dishonourable pretences under cover of which some chemists embark on the broad ocean of general prescribing; these evils are admitted, are discountenanced by the best men in each class, and, we hope, are on the decline. But they will never entirely die out. No scheme of mutual accommodation nor any Act of Parliament will ever be framed which will ensure absolute harmony between two classes whose interests must at times overlap each other. Individual druggists can do a good deal to assist individual doctors to mutual advantage, and it is to the extension of this method of working on lines of mutual interest and of fairness to others that future improvement in the relations of the two professions is to be looked for.

Last month the *British Medical Journal* published an address on the relations of the medical profession to their patients, to each other, to homœopaths, and to chemists, which was delivered by Dr. Alfred Sheen, of Cardiff, to the South Wales Branch of the Medical Association. The address contained all the old stock comments, and nothing novel; but it was racy in style, and fairly catholic in its abuse. Consequently it has attracted a great deal of attention. Dr. Sheen regards the profession as a noble mission, and thinks no member of it ought to undertake any transaction in reference to treatment for less than 2s. 6d. He urges his readers to be less acrimonious among themselves; "we should recognise that we are a body of gentlemen, and should act as such," and should look on a qualified practitioner who has adopted the homœopathic theory "as a quack and a humbug." The necessity of acting towards such lower animals as chemists as gentlemen does not seem to enter into the author's system of ethics. He hardly seems to regard them as a necessary evil. Manslaughter and felony he seems to consider their most obvious tendencies. Two cases of alleged improper treatment by prescribing chemists are vaguely referred to. "Such instances might be multiplied by thousands." "We have every right to protest against this kind of practice by chemists; nay, we should do more than protest, we are justified in putting a stop to it by every legal means in our power, and for two reasons." Of course, the first reason is regard for the health of the people; the second

(as we expected) is that "the practice of medicine is our profession"; in other words, the complaints of the public are our rightful perquisites.

Dr. Sheen says that the Medical Bill of last year would have made the practice of medicine for gain by unqualified persons illegal, and he declares that in this view he is supported by Mr. Upton, the solicitor to the British Medical Association. There was no clause in the Bill which justified this assertion, and such policy would be directly contrary to the opinion unanimously expressed by the Royal Commission on whose report the Bill was framed.

Dr. Sheen concluded his address with some remarks on dispensing by doctors. These it may be interesting to give in brief. He says:—"The dispensing of medicines to our own patients is a necessity—perhaps an irksome necessity—which cannot be got rid of until we have reformed some matters which, under the practice of prescribing, are a great hardship to the profession.

"1. Chemists must charge a great deal less than they do at present for dispensing prescriptions. I sent a poor woman to a chemist with a prescription of half a drachm of tincture of aconite in four ounces of water. She took her own bottle, and he charged her 8d.

"2. The prescription, which, in general practice, at all events, is the property of the prescriber, should be retained by the chemist, without being entered in his books, and returned to the prescriber, unless otherwise directed by him.

"Or, 3, no prescription should be dispensed a second time without the signature of the prescriber, unless otherwise ordered by him.

"When there is a clear and honest understanding on these points between our profession and chemists, or when deflection from them is made illegal, and not till then, can the giving up of dispensing by us come within the range of practical professional politics."

Dr. Sheen wants it to be made penal for a patient when he has got a prescription for a medicine which does him good to have it made up a second time without the signature of the prescriber. In support of his argument he quotes the case of a gouty patient who was worth 30% a year to a doctor, but who got a prescription and never went to him again.

The advantages claimed for the medical man dispensing are (1) that ailments are not made public property; (2) personal supervision; (3) it is difficult to see why it should be more derogatory to a physician to dispense his own prescriptions than for a surgeon to carry out his own operative treatment; and (4) mistakes are not so likely to occur (1).

The one sound argument against the practice—namely, that there is no check on the doctor's mistakes or crimes if he dispenses his own medicines—is not alluded to.

TRADE-MARKS—REGISTRATION OF COMMON WORDS.

THE *Trade Marks Journal* just issued contains advertisements of applications from the Aylesbury Dairy Company for the registration as trade-marks of the word "kafir," "kefir," and "kephir," in three various spellings. Kefir is the true name of the ferment by aid of which a kind of koumiss called "airan" is made in the Caucasus. This is already quoted in the price-lists of the largest druggists, such as Gehe & Co., and was mentioned in our trade report for October. An analysis of it was published in our July issue, p. 348. The application is made for the use of the trade-marks for a milk ferment and fermented milk as foods, and as used in medicine and pharmacy. If it is unopposed the Company will secure the exclusive right to the use of the word for ever. It may never

be worth the cost of registration, but, on the other hand, it may become very valuable. Not many years ago koumiss, both the name and the article, were almost unknown. If it had been possible to register fancy words in 1875, and the word "koumiss" had been placed before the Registrar, he could hardly have refused to accept it. It is evident now that this would have caused much inconvenience, and whoever had secured the exclusive right to the proper name would have gained far more than the legislature ever meant him to have.

There is not the slightest doubt that kefir is just as much a common name as yeast or barn. It is not yet well known; but that is an accident. It is not a word invented by the company nor applied by the exercise of the imagination in a new sense or a new connection.

This application thus reveals a new danger. New drugs are constantly being introduced. Their names are novel and little known, by the nature of the case. The Registrar cannot be expected to know whether they are fancy words or not; no one has any interest in them, there is nothing to prevent an enterprising firm from securing the exclusive right to them by registering them as trade-marks.

It will be nobody's interest to oppose the registration, and it needs but little exercise of the imagination to picture a continual scramble between firms, whom we could easily mention, to be the first to register the name of every new remedy. The danger goes even further. We cannot reasonably expect the Registrar to know all botanical generic names, or the names of all the last discovered chemical compounds. Unless the matter is looked after by some central body we may wake up one morning to find Messrs. Enterprise, Pharmacy & Co. the sole possessors of the right to use words such as "pelletierine," "quillaia," or "salicylic acid," which were all little-known words a very few years ago.

We are glad to notice that the Chemists' Trade Association have decided to look after trade-marks. We happen to know that, as a matter of fact, the Registrar now recognises no guide but the Pharmacopœia as the collection of titles common to the trade, and there is no security that at any time any title in general use may not be submitted to the Registrar, advertised in the Official Journal, registered, kept quiet for five years, and then claimed as exclusive property, when opponents and competitors would have no legal power to dislodge such a claim. It is in view of these possibilities that we have recently commenced the publication of the marks officially advertised, and we are glad to think that our action has stimulated the Birmingham Executive Committee to a recognition of the danger.

A CO-OPERATIVE DRUG-COMPANY.

WE have before alluded to the registration of a "British Chemists and Druggists' Trading Association (Limited)," and we now find that the prospectuses of this company are being circulated throughout the trade. We have had one or two letters from correspondents asking us to help forward the scheme, which in the opinion of the writers is "just what is wanted." We have, in consequence, read carefully the prospectus, and have also made some supplementary inquiries. Our opinion is formed without any prejudice for or against the enterprise, and our only concern with the affair at all is that the issue of some 32,000 prospectuses (as we are informed) makes it a topic of some current interest.

The nominal capital of the company is fixed at 100,000*l.*, and permission is given for the payment in full of all shares, five per cent. to be allowed on all sums so paid above the amount of the calls. There is no limitation of shareholders; they may or not be chemists or medical men, though, as we

understand, these classes only are directly invited. Nor, so far as we can see, is there any provision for confining the dealings of the company to shareholders, consequently the few paragraphs inserted about the blessings of co-operation do not fully apply. Of course it is expected that if chemists and medical men take shares in this company they will be likely to assist it. This is a very common anticipation in prospectuses, but it carries but little weight now-a-days with the experienced investor. A chemist would need to have a very large stake in the Association to induce him to deal with it exclusively unless the advantages offered were at least equal to those available elsewhere.

The directorate is composed of gentlemen certainly of respectability—in some cases of eminence. The list includes the names of Mr. W. Crookes, F.R.S., and Dr. Alder-Wright, F.R.S., both men of high scientific reputation, but with no peculiar qualifications, so far as we know, for directing the affairs of a wholesale drug business. There is a Mr. Arthur, formerly a bank-manager in Hong-Kong, and a Dr. Palmer, formerly a deputy surgeon-general in India. It is not stated in what way these gentlemen will be able to promote the interests of the Association. There are also four chemists and druggists, and these should certainly be the backbone of the Association. They are Mr. Clark, of Hugh Street, Eccleston Square, Mr. Floyd, of Bury-St.-Edmunds, Mr. Glanfield, of Dorking (retired from business), and Mr. Nutt, of Messrs. Pollock & Co., Fenchurch street. We do not question the general capacity of any of these gentlemen, but it cannot be said that unitedly they form a syndicate exceptionally qualified to establish and exploit a wholesale drug business. The directorate is, in fact, eminently respectable, but it is not remarkably influential.

The company, as represented by the gentlemen we have just named, propose to trade as wholesale druggists, manufacturing pharmacists, druggists' sundriesmen, and patent medicine dealers. To establish these departments in working order, ready to do an extensive business, and in a style with which none of the existing organisations can compete, they seem to think no more is necessary than to hire a building, engage a couple of gentlemen who have been in the trade, and print a price-list. The statements made in the prospectus seem to us curious ones to be endorsed by any four chemists and druggists with or without special experience. They seriously estimate that they will be able to offer drugs and chemicals at from 15 to 20 per cent. lower than present wholesale druggists' rates; that is 3*s.* to 4*s.* in the pound less than present list prices! Besides this, it appears from the articles of association that not less than 100*l.* per annum each is to be paid to the directors, besides a probable extra price for "managing directors," and as we are told there is to be thorough organisation, all departments will of course have to be manned at ordinary market prices. In addition to these advantages, shareholders are led to expect from 10 to 20 per cent. on their investments. Do the chemists whose names we have mentioned seriously imagine that it is at all possible for a new house to come into the wholesale drug business and, even if furnished with all the skill and experience the whole world could afford, sell goods at some 25 to 30 per cent. lower than all its rivals, and make a profit? If such an one could not, how is a company, handicapped as it always is with a costly directorate and with all its expensive organisation, which can never be prevented, likely to do anything of the kind?

There are two minor points in the prospectus to which attention should be directed, not so much for their intrinsic importance as for the purpose of showing that "the gentlemen of experience" vaguely alluded to have not yet been engaged. The company, it appears, intend to supply drugs and chemi-

cals both to chemists and medical men. We understand that all are to buy at a uniform price. If that is so, the chemist-shareholders will not be gratified; if it be not so, the medical element of the company will have good reason for complaint. Another paragraph intimates that rates are to be strictly the same for small as for large quantities, for broken lots as for original packages. We can understand that this may tempt the small buyers, but it seems rather a hard condition for the best customers.

In conclusion we wish to say that we do not doubt the perfect good faith of the promoters of this enterprise, but we think we have suggested reasons for questioning their fitness for spending 100,000 £ ., or any portion thereof, in the foundation of a business of such a complicated and technical character as is that of a wholesale druggist.

DISPENSING PRICES IN VARIOUS COUNTRIES.

THE editor of the *Pharm. Zeitung* lately sent the prescriptions copied below to correspondents in Austria, Russia, England, France, Italy, Holland, Belgium, and Switzerland, with a request to be furnished with the average price that would be paid for the medicines dispensed in those countries. The prescriptions quoted were as follows:—

I.			IV.		
Aque destill.	..	180 0	Ferri reducti	..	40
Kal. iodati	..	30	Aloes	..	10
Morph. sulf.	..	005	Rad. rhei pulv.	..	50
M.			(Mucil. g. arab. q. s.)		
			M. f. 20 pilul.		
II.			V.		
Inf. serpentariae	..	1500	Adipis suilli	..	300
Ammon. carbonic.	..	20	Extracti hyoscyami	..	50
Syrup. tolutau.	..	300	Camphorae	..	10
M.			M.		
III.			VI.		
Natri bichlorici	..	50	Spirit. angel. comp.	..	600
Tinct. benzoës	..	100	Ol. feniculi	..	80
Tinct. croci	..	50	Ol. cajuputi	..	80
Aqua rosar.	..	1800	Chloroformii	..	80
M.			M.		

In supplying the English rates for these medicines we stated that we quoted the ordinary tariff of good-class London chemists, but not the extreme prices charged by a few houses, and we explained that lower rates, down to at least one-half of those given, were common. On this basis we named 1s. 6d. to 2s. for Nos. 1 and 2, 1s. 6d. to 1s. 8d. for No. 3, 1s. 6d. for Nos. 4 and 5, and 2s. 6d. for No. 6. In the subjoined table, which we give in English money, the information gathered is presented:—

	Germany		Austria		Russia		England		France		Italy		Holland		Belgium		Switzerland	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
1	0	9	0	6½	1	3	1	6	2	1	0	10	1	3	0	7	0	11
2	1	3	0	11	1	8	1	6	2	1	0	10	1	7	0	8	1	0
3	1	2	0	9	1	9	1	6	2	6	1	2½	1	7½	1	0	1	5
4	0	11	1	1	2	0	1	6	1	8	1	0	1	5	0	10½	1	1
5	1	7½	1	1	1	11	1	6	1	10½	1	0	1	5	0	6	1	0
6	1	3	1	7	2	1	2	6	1	10	2	5	2	7½	1	9	2	1

It is necessary to explain in reference to this table that the prices in Germany, Austria, and Russia are legally fixed. The French prices given are those of a high-class pharmacy in the aristocratic Faubourg St. Germain. The Italian prices are those of M. Janssen, of Florence, and are in general accordance with those of the large Italian cities. In Holland prices are fixed by law, but four tariffs are allowed. The rates quoted are the highest; the lowest would be about 25 per

cent. less. The Belgian prices are given by M. Gille, of Brussels, as those fixed for the sick clubs. M. Gille adds, very necessarily, that "for rich people, and especially for those who only pay yearly, these rates are much enhanced, sometimes being doubled." The writer of these lines, whom Mr. Gille, in the height of his politeness, would hardly characterise as a "very rich person," had the honour of spending close on 100% for medicines and medical attendance in Belgium last year, and he can confidently assert that double the quoted rates would not nearly reach the prices which he had to pay in at least half-a-dozen pharmacies. Of all the countries in Europe Belgium is the worst for a stranger to fall sick in. The prices quoted for Switzerland are those of the Berne Canton. These are lower than those charged generally in the other cantons.

DR. SQUIBB ON THERAPEUTICS.

DR. SQUIBB has maintained the reputation of his *Ephemeris* by the character of the articles contributed to the current November number. As writer and experimenter he exercises an unusual amount of diligence, which keeps his observations perpetually to the front. Cocaine, therefore, naturally finds a place in his recent investigations, and, in spite of newspaper literature and more scientific comment, he contrives to say something new respecting this sensational subject. Few writers seem to take cognisance of the fact that some years ago there was some little excitement with regard to this drug. The claims for its introduction into medicine were then so highly coloured that the partial failure in results was followed by complete rejection.

We wish specially to allude, not to the revived use of this remedy, but to an address given by the doctor on "Modern Progress in Materia Medica and Therapeutics." It appears to accomplish the nearly impossible feat of presenting the subject in a new light, and Dr. Squibb for once has given himself the time to be short. Omitting the application of new remedial agents and improved processes, the author considers that slow and substantial progress made by a class of close observers, who write little and read much, and learn chiefly from improvements suggested by their own observations. It is rather from what they are seen to do than from what they contribute to literature that we discover the sterling advance in therapeutics which they evince. For them "the ubiquitous drummer" possesses no influence, and by them his wares are unheeded. We may get out of their lives an essential element of information, and this view seems as ingenious as it is novel.

First, then, this class of physicians recognise that individual and professional success depends on their being useful to the public. The wish of the patient is to obtain relief or cure; he who relieves or cures will find his practice grow.

The public may be interested in abstruse researches or speculations which form for them a species of intellectual entertainment; but they will go to the man who knows best how to apply them to their daily wants. It does not follow that a man who has written an admirable essay, more particularly if it contain the collected wisdom of others, is in the enjoyment of a large and remunerative connection. This may explain a circumstance which not seldom creates a regretful feeling among the intellectually gifted. Instances are not uncommon that men of lesser polish are the means of demonstrating the utilitarian value of a doctor. With no remarkable attainments or opportunities, except the one of knowing how to control disease, they make their mark. This success which "begins in actual results of skill and labour" increases just in proportion as it is useful. We could bring in numerous examples in English medical practice which would

entirely confirm this idea. We arrive at the mode of action adopted not from scientific papers, since none are written by such practitioners, but from what they are found to use. Thermometers, urinometers, and plain microscopes; by chance a sphygmograph, and a few reagents are the staple of their wants. Their simple *materia medica* rarely travels outside the *Pharmacopœia*; and when occasionally they order some new advertised remedy, "it is always in very small quantities, and, as a general rule, not repeated."

If, then, professional success depends upon utility to the public, that must depend upon therapeutics, and this in turn upon *materia medica*. Hence all improvement in this direction is the very foundation on which the medical profession rests.

A distinct reformation in things medical is the value of the word cure. Many physicians successfully treat disease; some, even diseases, but very few undertake cures. That is left to the charlatan, and to unscrupulous assertions of advertisement. Neither do intelligent persons call in physicians with the unmodified idea of being cured. They wish for a recovery of health, and are satisfied with the recovered state. No drug is now credited with the power of curing any one specific disease, and the days of condurango and chian turpentine, if not ended, are distinctly on the wane. But as the doctrine of cures disappears, so the utility and certainty of remedial agents become established. As long, however, as the world lasts, the credulous will always afford an open market to imposition, and we owe a debt of gratitude to the patient perseverance of the medical profession, who by their successful treatment of disease rescue the healing art from empiricism.

Dr. Squibb makes a bold protest against an arbitrary posology. The confraternity of chemists and druggists, especially those resident in large centres, will agree with him that the doses assigned to remedies in books cannot be considered absolute. They are good as guides and starting-points; in innumerable cases they must be and are modified.

Different persons, and different conditions of the same person, are very differently susceptible to the action of medicines.

There are limits to this departure from authorised instructions, and the dispenser must exercise his judgment, which is alone of value when founded upon competent knowledge of that art by which he gains his living. "With increasing knowledge and broader views physicians now look for effects, and the time is, perhaps, not far off, when the only use of stated doses of medicines will be to know what quantity to begin with." In three cases of confirmed epilepsy, 100 grains of potassium bromide a day were wanted in one case; 160 grains in a second; and 240 grains in a third.

Two grains of quinine sulphate will produce ringing in the ears in some persons; others, to produce the same effect, will require 60 grains.

Dr. William H. Van Buren had to vary the amount per diem of potassium iodide from 40 to 100 grains; and in extreme cases 480 grains.

Important advance has been made in knowledge obtained and applied in scrutinising the quality of medicines, and a better class of medicinal agents has been the result.

More pharmacopœias are yearly sold, and physicians using the official test solutions, and by individual watchfulness, secure the better character of their supplies. Cheap remedies are found to be poor economy; and merely high-priced supplies are not always the best; safety lies in the power of examination, and in avoiding complex forms.

During past years simplicity has been the rule; fewer but more active agents are employed, and polypharmacy is passing away. A few definite standard medicines are in the main sufficient to answer the intentions of the physician, for

the good reason that his personal observation leads him to know just what they will do.

In America it appears that decoctions, infusions, vinegars, and wines have almost gone out of use, in company with tinctures and syrups. They have been superseded by the more convenient and reliable fluid extract. So far our English experience is not identical, nor would the remark apply to Continental practice. We have not either continued the attempt once strongly advocated of seeking to extract the active principles of drugs and use them medicinally, for both chemists and the profession are aware that they only in part represent the drug from which they are extracted.

Finally, observes the doctor, "perhaps the greatest progress of all has been in the power and definiteness of the agents used, and in judging of the manner and effect of using them."

The newness of the above remarks is the ascribing the advance in *materia medica* and remedial agents to the necessity felt by a large body of unobtrusive practitioners that their services must be useful to the public. They cannot hope to be successful with inferior drugs, or without real knowledge of the best method of administration. Hence the study of what they do becomes a very good test of what is useful. They cannot afford to indulge in preparations which have a fanciful or fictitious reputation; but they will be sure to adopt such agents as their individual experience has shown to be successful. They keep medicine in a sound condition; and as a community they are on the side of simplicity, pure drugs, and a rational mode of practice.

Many, who are unacquainted with the personal and social bearings of the question would be astonished to find that there is a mass of utterly competent and successful practitioners, who, apart from literature or appearances in the scientific world, are daily advancing the progress of medicine and securing for themselves and their families more than an honourable competence.

The "foreign medicine" difficulty seems to be as good as settled. When it was made known that the Board of Inland Revenue insisted that all foreign medicines (other than simple drugs) sold in Great Britain should bear the medicine stamp, it occurred to some ingenious firms in Ireland that, as the Medicine Stamp Act does not extend to that country, they might undertake the sale of such foreign medicines as were used for dispensing, and circulars were issued announcing such offers to the English trade. Lately Messrs. Barclay & Sons, of London, have announced that they too are prepared to supply, *unstamped*, foreign medicines for dispensing purposes. We understand that representations having been made to the Board of Inland Revenue, explaining how the regulation in question puts English dealers at a serious disadvantage, it has been intimated that so long as foreign medicines are sold and used simply for the purpose of dispensing the prescriptions of qualified medical practitioners, the Board will not feel called upon to prosecute. Of course, any person, wholesaler or retailer, who may make a sale of such unstamped medicine in Great Britain under other circumstances, will render himself liable to the usual penalty.

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Sir Lyon Playfair has been elected President of the British Association for the meeting at Aberdeen next year. For the place of meeting in 1886 Birmingham has been chosen. Invitations were sent from Birmingham, Manchester, and Bournemouth.

* *

Mr. Ernest Hart, in a lecture on the Health Exhibition, delivered to the Society of Arts, declared that the twenty solid volumes of handbooks, lectures, conferences, and catalogues, which had emanated from it, were of unsurpassed excellence, and would be the more appreciated as they were more studied. The few which have come under our notice seemed to have been written to order, and not under that

burning sense of a message to deliver which yields one of those works destined to speak to ages yet unborn, as Mr. Hart seems to think these catalogues and other productions will do.

* *

Our contemporary, the *Analyst*, makes some amusing quotations from one of the Exhibition handbooks, entitled, "Public Health Laboratory Work." This is by such eminent men as Dr. Corfield and Mr. C. E. Cassal. The following are among the quotations given, the italicising being done, we presume, by the reviewer—

"The volume of a good-sized bottle of from two to six litres capacity, and provided with a well-fitting stopper, may be taken by carefully filling it with *mercury* and then measuring the volume of the mercury by pouring it into a glass measure." (Page 54.) "If a *very large quantity* of air containing *arsenic* be drawn through a tube heated to redness by a gas flame, a 'metallic mirror,' or ring of *metallic arsenic* will be formed in the tube, which is recognisable by its peculiar crystalline structure and by other tests." (Page 60.) "The metals which may be present in drinking-water, and have to be considered as regards their poisonous action, are lead, copper and iron." (Page 69.) "The chief *proximate* constituents of milk are: Water, fat, casein, milk, sugar, mineral matter (including common salt and phosphate of lime); the principal *ultimate* constituents being the elements oxygen, hydrogen, carbon, nitrogen, calcium, phosphorus, sodium and chlorine. The isolation on the determination of the respective total quantities of the *ultimate* constituents of such a substance as milk is a *comparatively easy matter*, but we do not thereby obtain *very much* information as to its value as a food, or as to the purity or non-purity of a particular sample of it, such information being rather obtained by a study of its proximate constituents." (Pages 71 and 72.)

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The *Lancet* says:—Messrs. Burroughs, Wellcome & Co. have communicated to us their willingness to allow each medical practitioner in the kingdom to prescribe at their cost to one charity patient enough of any of the various medicines prepared by them to last one month; or, if the subscriber prefers, they will supply two such patients for two weeks each. Should the patient be unable to pay carriage, Messrs. Burroughs, Wellcome, & Co. express their readiness to prepay delivery charges to the address either of the medical man or patient, as directed. A list of medicines from which selection may be made will be sent upon application to them."

* *

A case recently decided by Mr. Justice Wills may be useful information. A Mr. Gillies had entered into the service of Messrs. Sharman, Harris & Clark, Lower Norwood, medical practitioners, and had agreed with them not to practise within four miles of their office. He left them and did commence practice close by. On being warned he removed his own name, and subsequently the name of a Dr. Hullseburgh, of Maidstone, appeared on his door, but Mr. Gillies still continued, as assistant to Dr. Hullseburgh, to do all the practice. Evidence was adduced, which in the judge's opinion showed that the agreement with Dr. Hullseburgh was a merely colourable arrangement intended to enable the defendant to evade his agreement with the plaintiffs. If this had not been so, his opinion would still have been, having regard to the circumstance that Dr. Hullseburgh was not himself practising at Lower Norwood, that the defendant was practising within the meaning of his agreement with the plaintiffs.

* *

The Mincinglanians have enjoyed a novel and pleasing entertainment during the past week or two in the shape of a portrait gallery opened in that locality, containing a hundred representations, partaking more or less of the nature of caricature of the prominent individuals connected with the different markets of the neighbourhood. Most of the persons represented belong to the tea, coffee, and spice trades, but the collection includes a few faces familiar in the drug sale rooms. The pictures are coloured, and are described as by "Lib." They are undoubtedly clever productions. The artist, we believe, is a young Italian. Some of the "professional beauties" of Mincing Lane are very indignant at the liberty thus taken with their honoured features,

and it is whispered indeed that there have been consultations with solicitors thereanent.

* *

The new international state in Central Africa, which is being created under the auspices of Prince Bismarck, and where free trade is to be the privilege of all nations, is likely to be an important region in the near future. To a great extent its products are yet unknown, but we may safely venture the prophecy that the discoverers of new contributions to the *materia medica* will not be the last in the field in developing its resources. It is proposed to extend this state some 400 or 500 miles from north to south, and from ocean to ocean, a distance of not less than 1,500 miles from east to west. In this tropical and richly-watered land, nature must have spread her gifts in rich profusion, and we shall be surprised if commerce with this part of the world does not soon make itself felt in the drug market.

* *

A breeze has occurred in city politics of some little interest to the druggist fraternity. Last summer the Commissioners of Sewers authorised certain special expenditure for disinfectants, and for other purposes, to guard against a possible invasion of cholera. The medical officer of health, Dr. Sedgwick Saunders, seems to have had the duty of purchasing the disinfectants. At a recent meeting a bill of 251*l.* was submitted to the Commissioners for payment. It was for disinfectants supplied by a certain "A. Whines." Dr. Sedgwick Saunders explained that this Mr. Whines had acted as his commission agent in the matter. But it appeared that the goods were supplied and the invoices sent in from a place of business in Artillery Lane, which, according to the Directory, is occupied by the chairman of the Sanitary Committee of the Commissioners of Sewers, Mr. G. Boor, a wholesale druggist. It was not he, however, but his son, who supplied the goods. Had he himself supplied them the transaction would have been illegal. There have been some very warm discussions over the matter, and the medical officer pressed for a committee of inquiry into his conduct, which was granted. The money has since been paid, and everybody has withdrawn charges against everybody else, and nothing beyond an error of judgment has taken place!

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The Metropolitan Board of Works have authorised an expenditure of 5,000*l.* for plant for the production of manganate of soda for treatment of the sewage.

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The Medical Faculty of the University of Berlin have again had to recognise the weight of Prince Bismarck's hand. Some time ago a Dr. Schweninger, of Munich, treated very successfully Count William Bismarck, the Chancellor's second son. This led to his being sent for by the Prince himself. In his case, too, he seems to have been highly successful both medically and socially. Bismarck desired Schweninger to remain in Berlin; Schweninger asked in return for a Professorship in the University. Bismarck promptly granted this favour, as far as was in his power, by "recommending" him to the Minister of Public Instruction. The latter was very reluctant to make the appointment, and his hesitation was aided by the vigorous protest of the whole of the [medical faculty. This resistance made the Prince firmer than ever; the Minister declined to throw away his portfolio to satisfy the faculty, and Schweninger was appointed Professor of Dermatology. In accordance with usual custom he called on the other professors, leaving cards with each. One of these, Dr. Dubois-Reymond, returned the card with the word "refused" written on the back. Schweninger sent M. Dubois-Reymond a challenge, which the latter refused on account of his age, he being over 70. The challenger therefore claims the right to question his colleague's honorability. One of the reasons of opposition to the new comer is said to be a charge of indecency made against him some ten years since, which, however, it is asserted was not proved, and another reason, and, perhaps, a more practical one, is a suspicion of a tendency in Schweninger to homoeopathic and other heterodox views. His course of lectures is, however, established, and if a thick development of moral skin is a recommendation he ought to make a first-rate professor of dermatology.



Literary Notes.

The Alkali Makers' Pocket-book. By George Lunge, Ph.D., and Ferdinand Hurter, Ph.D. London: George Bell & Sons. Pp. 168.

To all concerned with the alkali trade this small volume will be of the greatest value. It is the outcome of the desire among the German alkali-makers for uniformity in standards of analytical methods. The German Society of Alkali-makers decided some time ago that a manual which should provide buyers and sellers with the means of accurate valuations ought to be prepared, and they accordingly appointed among themselves a committee of seven charged with the preparation of such a manual. This committee appointed Dr. Lunge, the well-known authority on all questions connected with the alkaline industry, to prepare the necessary tables and instructions. On his draft the work was prepared. Contributions from other authorities made it more perfect, and this pocket-book has been to a large extent accepted in Germany as the standard reference. Dr. Hurter has adapted the treatise for English trade, and has deserved their warm thanks for his laborious task. In many cases he has recalculated tables throughout to suit them to our mode of expressing weights, measures, and temperatures.

A great part of the manual consists of tables. First we have extensive tables showing the molecular and equivalent weights, and the percentage composition of all the chemical compounds related in any degree to alkalis. Then follow a large number of solubility and specific gravity tables; tables for calculating volumes of gases and water at various temperatures, specific heat tables, and many others which may be generally useful to the working chemist.

Following these are the special sections. Tables and processes are given for calculations and testings in regard to (1) Fuel and furnaces, (2) sulphuric acid manufacture, (3) salt cake and hydrochloric acid, (4) bleaching powder and hydrochloric acid, (5) soda-ash manufacture, (6) sulphur recovery, (7) nitric acid manufacture, (8) potash salts, (9) ammonia. Seldom, perhaps, has such a mass of special information been condensed into so small a space.

Poverty. By James Platt, F.S.S. London: Simpkin, Marshall & Co. 1s. Pp. 208.

AGAIN Mr. Platt comes forward with one of his vigorous, healthy essays. Mr. Henry George and the writers about the "outcast poor" seem between them to have goaded the author into this new work, in which the old sermons of self-help, thrift, and perseverance are preached over again. They are well worth preaching, and no one urges them with better force than Mr. Platt. He demolishes socialistic fallacies with keen logic and with statistical arguments; but in doing so he is unjust to a good many earnest men, from whose writings it is easy enough to select specimens of exaggerated rhetoric, but who can at any rate advance powerful arguments for their main contentions. Mr. Platt is not quite consistent. He sees, none clearer, what has been done to advance the condition of the working-classes by more equitable legislation in the past. He puts down the results in figures. But he would seem to maintain that everything necessary has been accomplished. He scoffs at "enthusiasts," and others who recognise the existence of some unfair laws and conditions still, and who are not likely to desist in their efforts until at least the statute-book no longer imposes these unfair conditions. Mr. Platt strongly opposes State aid as a principle in dealing with poverty; but the State, according to him, ought to "provide libraries and reading-rooms." The truth is the questions involved are too complicated to admit of absolute consistency. The fact that men of all shades of opinion are earnestly striving to raise the social condition of the poor, are more thoughtful of the happiness of those around them than their ancestors were, is the most hopeful

sign of the times in regard to poverty. There is no want of sympathy in Mr. Platt's essay. He knows his subject, and he discusses it with sound sense. But his treatment of the case would be exclusively a tonic one, and perhaps he is inclined to overlook the necessity of occasional measures of alleviation. The essay is, however, well worth reading, and, like all Mr. Platt's writings, it is made more effective by the number of judicious quotations from current literature, which show how widely and in what a Catholic spirit the author studies the thoughts of living men around him.

Dictionary of English Names of Plants applied in English and among English-speaking People to Cultivated and Wild Plants, Trees, and Shrubs. By William Miller. In two parts, English-Latin and Latin-English. London. John Murray. 1884. 8vo., pp. 8 + 264.

MR. W. ROBINSON, of the *Garden* newspaper, has been endeavouring to promote a more general use of English names for the plants, trees, and shrubs commonly grown in gardens and pleasure-grounds. He, and all who think like him, believe that the spread of the study of botany is hindered by the nomenclature in general use among botanists, and at his desire this dictionary was compiled, to provide a vocabulary of names that will remove this difficulty.

The arguments on his side of the question are fairly summarised in the preface. But we have a strong opinion that his side is the weakest. Linnaeus described about 7,000 plants; Lindley (1846) estimates the number of known species at about 80,000; Bentley, in 1868, at about 100,000 phanerogams; and it is said that about 40,000 species are cultivated in greenhouses and gardens. These figures are a sufficient proof that botany is no pastime for sluggards, let the nomenclature be what it may. Names must, first of all, be easily distinguishable; secondly, they should not mislead. Could 40,000 names be manufactured from the English language which would comply with these very easy conditions? The author quotes with approval a lady who thinks "day lily" is a much better name than *Hemerocallis*, because it has a distinct meaning. But the distinct meaning is distinctly confusing. She probably understands that the day lily is a lily flowering in the daytime. So do countless other plants; while to call the *Hemerocallis* a lily is certainly not the way to help a student to clear ideas. The plea that the Latin nomenclature in use is hard to learn is a very feeble one. Yet such a jawbreaking word as *Eschscholtzia* is in common use, while rhododendron, calceolaria, pelargonium, convolvulus, and many other sesquipedalian names are household words.

Again, we are told that it is only in botany that we have to submit to this pedantic tyranny. No one reproves us for talking of a horse, or a sparrow, or a dragon-fly, nor, we reply, of a rose, an apple, a fern, or a cowslip. When we go further we must talk of the elephant, the porcupine, the rhinoceros, the antelope, all of which are Latin or Greek. Further, the scientific names are said to be meaningless to those who do not know Latin and Greek. But what does "primrose" mean to the ordinary English man or woman? They have no idea of the history of the word. This must be learned; and the meaning of the scientific terms is really easier to find than that of the vernacular.

The argument that scientific nomenclature is confused by the enormous number of synonyms is a double-edged weapon, which this dictionary turns against its originator. Some one has coined the name of "torch lily" for the plant called *Tritoma*, also known as "red-hot poker plant" and "flame flower." To be sure of knowing the plant referred to even the English gardener must learn three names; the last invented being the worst, because it calls a plant a lily which not only is not one of the lilies, but bears little or no resemblance to them. Surely "flame flower" was descriptive and poetical enough without adding to the confusion.

We may sum up the whole argument by saying that he who studies plants enters a new region, crowded with facts and relations of which he has had no previous experience. His course cannot be an easy one. He must make acquaintance with these new ideas; to be able to talk of them he must give them names: they could not differ more widely from all his other ideas, and the question is if it is better to learn a

new terminology, that can only be applied to the new ideas, or to adapt old names, which must suggest relations that have no existence. The same complaint is made against all the sciences, but it is only the cry of flippant ignorance.

Still there are many who hanker after English names for all plants, even though it may be the affectation of simplicity. For them this book will have its attractions, though we cannot hope that it will do much to help the cause. If the author had set himself to select a list of standard names, putting all but the best name for each plant into a second grade, he would have done good work. He would have been much criticised, no one would have accepted all details of his scheme, but a definite object for criticism and improvement would have been provided.

The book is divided into two parts. The first gives an alphabetical list of English names with their Latin equivalents. The second gives the botanical names in alphabetical order, with all the English equivalents. In one case—*Verbascum Thapsus*—the author gives twenty-seven English names, but makes no attempt to indicate the one most used, while he omits the name "great mullein," which is probably what seven English botanists out of ten would call it in speaking to non-botanical friends. In the single genus *Allium* we find that he gives us nine different names, which make generic—garlic, leek, shallot, scallion, moly, ciboul, rocambole, chives, and onion, with distinguishing adjectives attached to each. This hardly recommends the system to orderly minds. The English name "rose" is applied not only to roses proper, but to twenty other different genera, as unlike as they well can be.

Although the book is not what it might be it will probably be very useful. It differs from other works with which we are acquainted in containing English names for foreign plants, the meaning of which is sometimes very difficult to trace.

The book is printed and bound in the elegant style that is characteristic of the historic house of Murray.

Scientific Notes :

On Chemistry, Pharmacy, Botany, Materia Medica, &c., Original, Selected, and Translated.

SAFROL.*

PROFESSOR POLECK, of Breslau, has prepared safrol, the chief constituent of the essential oil of *sassafras officinalis*, by cooling that portion of the oil which distils over between 228° C. and 235° C. down to -25° C., at which temperature safrol crystallises out as a colourless, transparent, refractive mass, melting at 8° C. Safrol is a methyl-benzol or cymol, in which four hydrogen atoms of benzol are replaced by two atoms of oxygen, and has a composition represented by the formula, $C_{10}H_{10}O_2$. It has a neutral reaction, is optically inactive, and boils at 232° C. It is soluble in alcohol and ether, but insoluble in caustic soda.

THE MANUFACTURE OF OXYGEN.

THE production of oxygen direct from the air has long been aimed at by chemists. It would appear, from a communication made to *La Nature* by Messrs. Brin frères, that this purpose has been successfully accomplished. They have erected a plant which produces 100 cubic metres per day—a quantity which is far beyond merely laboratory experiments. Their process is based on the property possessed by caustic barytes of absorbing oxygen. A series of retorts is fixed in a furnace, and caustic barytes is inserted in each retort. A force-pump and a suction-pump are connected with each retort, and at a temperature of between 500° to 600° C. air is pumped into the retorts. The air has previously been in a chamber containing lime and caustic soda, to free it from carbonic-acid gas. At the temperature named the barytes absorbs oxygen. At about 800° the resulting peroxide is deoxidised, and, by means of the suction-pump, the oxygen is drawn off. By this process a perfectly pure gas can be

obtained in unlimited quantities. The oxidation and deoxidation of the barytes can be repeated indefinitely.

Of course it produces nitrogen as well as oxygen, and the authors believe the manufacture of ammonia by direct combination with hydrogen will be possible.

The applications of oxygen are likely to be very numerous. The authors think it will be found superior to carbonic-acid gas in aerated beverages. For all antiseptic purposes oxygen is of great value, and it is likely to be extensively employed in metallurgical processes, as in its medium elevated temperatures are more readily obtained than in the atmosphere.

TO PREPARE HYDROCHLORIC ACID FREE FROM ARSENIC.*

COMMERCIALLY, pure hydrochloric acid nearly always contains recognisable traces of arsenic, and is for this reason unfit for a number of purposes, especially when large quantities of the acid are required.

H. Beckurts removes all traces of arsenic by fractional distillation in the presence of ferrous chloride.

Hydrochloric acid of 30 to 40 per cent. is mixed with a solution of ferrous chloride and distilled, the first 30 parts of distillate, and the last 10 parts of residue are thrown away, while the intervening 60 parts of distillate, which constitute the pure acid, are distilled into a separate vessel.

By this method an acid of 20 to 30 per cent. is obtained, which shows no traces of arsenic.

The method is also suitable for the manufacture of pure hydrochloric acid on a large scale, for which purpose the crude acid, which generally contains ferric salts, is mixed with pieces of metallic iron to reduce the ferric to ferrous salts, and the whole fractionally distilled as above.

The author considers that this method would be preferable to the unpleasant sulphuretted hydrogen process hitherto in vogue.

PREPARATION OF PURE FERRIC ACETATE.†

B. REINITZER refutes the statements of the text-books and other works on chemistry, that solutions of ferric acetate are decomposed even upon gently warming them, and states that when ferric acetate is prepared by precipitating a cold solution of ferric chloride with ammonia, and the precipitate washed with hot water until entirely free from chlorides, this readily dissolves in warm acetic acid, and the solution of ferric acetate may be even dried over the water-bath without decomposing, and the dry residue is easily soluble to a clear bright solution in pure water.

The presence of a trace of any other salt has, however, an influence on the stability of ferric acetate.

ON SOLUTION.‡

As a rule, substances to be dissolved are stirred about in vessels containing the desired menstruum with or without the aid of heat.

Hugo Borntraeger, in the *Chemisch-technischer Centralanzeiger*, states that he has had considerable experience in a number of chemical works, and is of opinion that the most rational way of effecting a solution of a substance is to suspend it in the centre of the menstruum, at two-thirds of the height of the latter, and, without any agitation at all, to leave the laws of gravity and circulation to have their own way. The substance to be dissolved is, according to its nature, either placed in a piece of black crape or in a kind of sieve, and hung in the solvent as stated. The author considers the best form for the vessel is the cylindric. This method is said to be especially useful in the preparation of extracts and solutions of resinous substances. The author has in this way prepared tinctures of shellac, colophony, copal, &c., without the aid of heat, in twelve to twenty-four hours, which were in some cases so strong that the solutions, on standing, congealed to a pasty mass.

The principle, as the author admits, is not new, but has not as yet been tried on a large scale; and he considers that it would be found, on trial, to save not only fuel, but machinery and manual labour.

* *Archiv der Pharmacie*, September, 1884.

† *Pharmaceutische Centralhalle*, September 18, 1884.

‡ Through the *Pharmaceutische Centralhalle*, October 2, 1884.

* *Pharmaceutische Post*, October 18, 1884.

THE AFRICAN OIL-PALM (*Elaeis guineensis*).

THE *Archiv der Pharmacie*, October, 1884, contains a paper by A. Meyer, Pharmaceutical Docent at the University of Strassburg on the structure, habitat, uses, &c., of the African palm-tree (*Elaeis guineensis*), from which it appears that although this palm, which is the only one of importance from a mercantile point of view, has now its chief habitat in Africa, it must have originally come from tropical America, where a similar but inferior palm (*Elaeis melanococca*) [is still indigeneous.

That nearly all parts of palms are of some value is well known, and this is especially the case with *Elaeis guineensis*. The leaves are used by the natives for roofing and wicker-work, the fibres at the bottom of the petiole serve for textile fabrics or caulking boats. From the juice a kind of wine is prepared, and the fruit and seeds yield the palm oil of commerce.

The oil, which is commercially the most important product of the African palm, is obtained by crushing the fruit and extracting the oil with boiling water, or by allowing the fruit to ferment, whereupon the seeds easily separate, and the oil is melted out from the former. This constitutes the crude oil, which is then handed over to Europeans for refining, either in factories not far from the source or in Europe.

Palm oil and palm seeds are imported solely from Africa. The trade is in the hands of native brokers, who buy the oil from the negroes in exchange for gold dust, strips of iron, brass, copper wire, and the like. The centre of the palm-oil trade consists of the oil villages Talifer, Fishtown, Snake-town, and Bonny, on the shores of the River Bonny, the latter village being the most important, the business done there alone in oil and seeds amounting to several thousand tons a week.

Miscellaneous Formulae.

WOOD VIOLET BOUQUET.—Extract iris, extract acacia, extract rose, of each 90 grammes; extract violet, 500 grammes; essential oil of almonds, 3 drops.—*Leitmeritz Rundschau*.

SOAP FOR REMOVING STAINS.—The two best formulae known for soaps to remove stains are given as follows by the *Scientific American*:—Take 22 lbs. of the best white soap and reduce it to thin shavings. Place it in a boiler, together with

Water	..	..	..	..	..	..	..	Lbs.
Ox gall	..	..	..	..	..	..	..	8 $\frac{3}{4}$
								13 $\frac{1}{2}$

Cover up and allow to remain at rest all night. In the morning heat up gently, and regulate it so that the soap may dissolve without stirring. When the whole is homogeneous and flows smoothly, part of the water having been vaporised, add

Turpentine	..	..	..	..	..	..	Oz.
Benzine, best clear	..	..	..	..	..	..	9
							7 $\frac{1}{2}$

And mix well. While still in the state of fusion colour with green ultramarine and ammonia, pour into moulds, and stand for a few days before using. The product will be found to act admirably, and the yield is very good indeed. The second method is rather more difficult to carry out than the former one, as it requires a little skill in soap-boiling to prevent the soap coming out unevenly on stirring, and the introduction of the ox gall requires to be done carefully.

Take of—

Cocconut oil	..	..	..	..	..	..	Lbs.
Tallow	..	..	..	..	..	..	27.5
Soapstone (talc)	..	..	..	..	..	..	2.2
Caustic soda (sp. gr. 1.349 lbs.)	..	..	..	..	..	..	4.4
Ox gall	..	..	..	..	..	..	15.4
Turpentine	..	..	..	..	..	..	6
Benzine	..	..	..	..	..	..	0.3
Brilliant green	..	..	..	..	..	..	0.1
Ultramarine green	..	..	..	..	..	..	0.05

Melt the fat, add the stone and colour, cool to 20° C., and then add the solution of soda. When all is well united and

mixed, add very gradually the gall, continuing the agitation without stopping for some time after all has been added. Should any separation take place, cover the boiler up for a few seconds, and if this does not help, fire up again, and continue stirring. Lastly, add the turpentine and benzine. Pour into moulds, and stand before using. This preparation, when properly applied with a brush, will remove the most refractory stains without injury to the cloth.

HAIR-WASH OR HAIR-BALSAM (specially recommended in Dr. Hoffman's *Pharm. Rundschau*).—Digest 10 oz. of coarsely-powdered quillaya bark, and 1 $\frac{1}{2}$ oz. of powdered capsicum, in so much spirit and water (equal parts) as to obtain 6 pints of a tincture. Then rub 2 oz. carbonate of ammonia with 4 oz. of cold water, and add to the tincture. When the salt is dissolved, add 1 pint of eau de Cologne. After five or six days filter through a covered funnel, and add 12 oz. glycerine. Fill in well-stoppered bottles.

Medical Gleanings.

EAR-ACHE.—It is said that by the following simple method almost instant relief of ear-ache is afforded:—Put 5 drops of chloroform on a little cotton or wool in the bowl of a clay pipe, then blow the vapour through the stem into the aching ear.—*Phil. Med. and Surg. Rep.*

VAPOUR OF GLYCERINE.—According to an account in the *Gazette Médicale de Nantes*, M. Trastour has employed with great advantage the vapour of glycerine whenever a distressing or frequent cough has had to be alleviated. The remedy is very simple in application. About 50 to 60 grammes of glycerine are heated in a porcelain capsule by means of a spirit-lamp; a large volume of vapour is thereby disengaged, and should be breathed by the sufferer. Glycerine in which carbolic acid has been dissolved may also be employed. The cough of phthisis and the irritation in the throat of many complaints afford proper trials for these remedies.

NEW MEDICINE FOR TAPEWORM.—Dr. Howard Pinkney, in the *New York Medical Record*, records a successful treatment of tapeworm with the oil of the pine-needle, made from the *Pinus pumilio*. He had given it because he could not get at any male fern, pelletierine, or pumpkin seeds. Two teaspoonfuls were given in the morning, and a dose of castor oil an hour later. It brought away a worm 15 $\frac{1}{2}$ feet long. "This oil," writes Dr. Pinkney, "contains no turpentine, is fragrant in its odour, and when mixed with milk very agreeable to the taste. It produces no strangury, tenesmus, or other unpleasant or distressing symptoms. The patient can generally pursue his ordinary avocation."

A LAXATIVE DECOCTION.—The following decoction is highly recommended by a writer in a recent number of the *Memorabilien*:—A tablespoonful of a mixture of equal parts, by weight, of senna leaves, frangula bark, and liquorice root is to be boiled for ten minutes in a pint of water. One half is to be drunk in the morning and the other half at night. The latter portion may be allowed to stand without straining, and, should the morning portion have acted sufficiently, may be kept for the next morning. This decoction is particularly recommended as a "spring physic," as it can be taken daily for weeks together, is not open to the objection of distending the intestine with gases and disturbing the digestion, like mineral waters, and is so agreeable to the taste that ladies take it willingly.—*Canadian Med. and Surg. Journ.*

CINNAMON BARK FOR TOOTHACHE.—In the *North Carolina Medical Journal*, April, 1884, Dr. J. R. Irwin writes that one of the best and most pleasant things that can be used to relieve this painful state of the dental nerves is chewing cinnamon bark. It destroys the sensibility of the nerves and suspends the pain immediately, if the bark is of good quality. After repeated trials, and in different cases, he is convinced that it is generally as efficacious as any of the other remedies suggested for odontalgia, and not attended with the unpleasant consequences of creasote, carbolic acid, &c., which relieve the pain, but leave the mouth as sore and painful as the tooth was previously, though these results are usually due to carelessness in using.—*Brit. Journ. Dental Science*.

A DRACHM of balsam of copaiba to an ounce of white vaseline makes an ointment popular with New York ophthalmologists, in treating chronic conjunctivitis.—*Phil. Med. and Surg. Rep.*

VANDERBILT, the New York millionaire, has presented \$500,000 to the New York College of Physicians and Surgeons. This is the story of the way the gift came about, as given by the *Philadelphia Medical and Surgical Reporter*, quoted from the *Albany Journal*:—

"Vanderbilt stopped at a wayside inn in Upper New York, as is his custom of an afternoon, to rest his horses and take a glass of gin-and-water. The place is known to horsemen as 'Barry's,' and is commonplace enough, except for being the favourite stopping-place for Vanderbilt, and for that reason a resort for the chronic roadsters. While he stood with his back to the bar, his elbow on it, and a glass of grog ('two fingers of Holland gin, two of hot water, and a spoonful of sugar'), a pitiable cripple entered—a little boy, with misshapen legs and back awry.

"How did you get into such a shape, sonny?" Vanderbilt asked.

"I was runned over," the urchin replied.

"An accident on the road had special interest for the questioner, and he got the particulars. The little fellow had been overturned and trampled on by a fast horse. He was too poor to be doctored at home, and yet his mother had foolishly objected to his removal to a hospital, where he might have received proper treatment; but he had been taken to the College of Physicians and Surgeons, where applicants get inadequate attention, or only such as will serve as illustrations to the lessons which the students are learning, the facilities being so limited as to preclude anything further.

"It chanced that Professor Doremus, the Professor of Chemistry, dropped into the bar-room at this juncture. In answer to the King of Mammon's question, he said it was a pity that this college had such limited quarters and scant facilities. He said that a big building would serve as good a purpose as he knew of in the whole range of New York charity. From that directly came Vanderbilt's unexpected \$500,000."

[That is the best bit of work we have ever heard of gin-and-water doing.]

Foreign and Colonial.

A FACTORY for the manufacture of chocolate, supplied with the most modern machinery, has been established at the Port of Spain, Trinidad, under the management of Mr. J. Schaeffer. The cocoa grown on the spot will be used.

FABBRICA LOMBARDA DI PRODOTTI CHIMICI. — It is stated that the dividend to be paid on the liquidation of the affairs of this company cannot exceed 20 per cent.

THE Soudan correspondent of the *Daily Chronicle* says that those who first reached the front say they could get more for bottles, and especially for Worcester-sauce bottles with glass stoppers, than for money.

It is said that M. Pasteur is going to Rio Janeiro to study yellow fever. Our readers will remember the communications on the subject from Dr. Domingos Freires that have appeared in THE CHEMIST AND DRUGGIST.

EXTENSIVE FRAUDS AT NAPLES. — An action, which lasted for four and a half months, and in which most of the distillers of Naples were more or less concerned, terminated on September 27, with the result that all the accused parties were found guilty and severely sentenced. One distiller was sentenced to two years' imprisonment and a fine of 364,320 lire, and another to three years' imprisonment and a fine of 2,464,156 lire. An anonymous letter had been sent to the finance authorities, informing them that a mechanical contrivance was being used by the distillers, by means of which the Excise officers were duped, and which proved on examination to be true.—*Chemiker Zeitung*, October 9, 1884.

CANTHARIDINE POISONING.—A despatch from Gleeson Station, a small village west of Nashville, U.S., on the Nashville, Chattanooga, and St. Louis Railroad, says that vicinity is intensely excited over the arrest of Taylor, the poisoner of Swain, Jones Groomes, and another man, with cantharides. Taylor says he has killed thirteen men with that drug. He refuses to give his motive, and appears perfectly sane. The probability of his being lynched is very promising.

THE NUMBER OF PHARMACISTS IN THE UNITED STATES. —The census reports of the United States for the last four decades, 1850, 1860, 1870, and 1880, show the number of physicians and pharmacists to be as follows:—

Year	Population	Physicians	Proportion of Physicians	Pharmacists	Proportion of Pharmacists
1850	23,391,876	40,554	1 to 572	6,139	1 to 3,778
1860	31,443,221	54,543	1 to 576	11,031	1 to 2,850
1870	38,558,371	62,283	1 to 638	17,369	1 to 2,219
1880	50,155,788	85,671	1 to 585	27,700	1 to 1,810

It is to be presumed that the number given in the census reports indicates the number of pharmacists inclusive of assistants; but in a Philadelphia circular lately issued this is said to be not probable, as it is stated that in that city, with a population of 900,000, there are 600 drug stores, or one to every 1,500 inhabitants.

FRENCH PHARMACY LAW.—The Tribunal Correctional of Rouen has had to decide another of the entangled questions to which the vague terms of the French pharmacy laws so often give rise. A grocer of St.-Etienne-du-Rouvray was charged with having sold castor oil. In that village there is neither pharmacien nor herborist, and the grocer produced a certificate from a local doctor admitting that he (the doctor) had advised the sale of this medicine by the grocer. Besides, the text of the law provides that grocers and druggists shall not sell any pharmaceutical preparation, but that they may continue to deal *en gros* in simple drugs, though they may not sell them by medicinal weight. The grocer said he did not sell by medicinal weight, but the Court held that in selling by doses he was selling by medicinal weights. As a result the fine of 500f. was inflicted. A medical journal remarks that if he had set a broken bone or amputated a limb the utmost penalty he would have had to pay would have been 5f.

SODA AND MINERAL WATERS.—The Commissioner of Health (Dr. Raymond), by virtue of the power conferred upon him by law, has declared the following practices dangerous and detrimental to public health, and has, therefore, prohibited the same in the city of Brooklyn:—1. The storage, keeping, selling, or having for sale, of soda water or mineral water in tin-washed copper fountains or vessels. 2. The storage, keeping, selling, or having for sale, of soda water, mineral water, syrups, or flavouring extracts, in vessels composed in whole or in part of copper, lead, or other poisonous substance in which the soda water, mineral water, syrup, or flavouring extracts come in contact with the copper, lead, or other poisonous substance. 3. The selling, delivering, or draughting of soda water, mineral water, syrups, or flavouring extracts through pipes, faucets, or taps, composed in whole or part of copper, lead or other poisonous substance, unless such pipes, faucets, or taps are so lined, coated, or protected as that the soda water, mineral water, syrup, or flavouring extracts cannot come in contact with the copper, lead, or other poisonous substance composing the same.

ACCORDING to *Nature* Manchester is determined to have the British Association in 1887, and its invitation will almost certainly be accepted.

A LOCAL paper, in giving the usual graphic account of an accident which befell a hod-carrier, wound up by stating that "Dr. B. was called in, but no disastrous results had followed up to the time of our going to press."

A NEW YORK dentist says he has received an order for a block of teeth, as follows:—"My mouth is 3 inches across, $\frac{5}{8}$ inches through the jaw; sum humocky on the edge; shaped like a horseshoe, toe forward. If you want me to be more particklar I shel have to come thar. Yours truly, —"



ALLCOCK'S PLASTERS—ALLEGED INFRINGEMENT OF TRADE-MARK.

AT the Liverpool City Police Court, on November 27, Mr. William E. Betts, chemist, 134 St. James Street, appeared before Mr. Raffles, upon two informations, charging him with having, on November 19, with intent to defraud, "applied, or caused or procured to be applied," the words "Allcock's Porous Plaster" to a plaster which was not of Allcock's make, and with having "enclosed, or placed, or procured to be enclosed" in one of Allcock's wrappers the same spurious plaster. Mr. Dodd prosecuted on behalf of Mr. Henry Daubeney Brandreth, the English manager of Allcock's Company; and Mr. Martin appeared for the defendant. Before the case was entered into the information was amended so as to make it read, "applied certain words," instead of "applied, or caused or procured to be applied."

Mr. Dodd said in this case Allcock's Porous Plaster Company, by their manager, Mr. Brandreth, were the prosecutors, and Mr. W. E. Betts, carrying on business as Betts & Co., chemists, 134 St. James Street, were the defendants. The case was brought against them for applying the trade-mark of Messrs. Allcock to a certain article which made it appear to be of a manufacture or kind which it really was not. Mr. Brandreth was manager for the Porous Plaster Company, of Sing Sing, New York, and for a long time past he had a suspicion that goods other than those of Allcock's manufacture were being sold in Allcock's name. On the morning of November 19 Mr. Heasman, a traveller in Mr. Brandreth's employ, went into the defendant's shop and asked for one of Allcock's porous plasters. Apparently the assistant in the shop knew Mr. Heasman, and supplied a plaster out of a box which was in the window. Mr. Heasman went into the shop because he saw in the window a stamp on a box containing porous plasters; a stamp of a kind usually manufactured by the Porous Plaster Company for placing upon their plasters intended for sale in Ireland, where it was not necessary to put the Government stamp upon the goods. The company had a peculiar private stamp used for their plasters sold in Ireland, and Mr. Heasman, seeing this private stamp upon the box from which the purchased plaster was taken, noticed at the same time that the 1½d. Government stamp was placed upon the private stamp on the plaster to make the thing look genuine. Mr. Heasman purchased this plaster, and he took it to Mr. Brandreth, who found on examining it that it was not an Allcock's plaster at all, but some other plaster, placed inside Allcock's wrappers and fastened down with a Government stamp. It was a plaster entirely different from those manufactured by Messrs. Allcock, although presenting slight points of resemblance. But experts could tell by the feel, the smell, and the way in which the plaster was put up that it was entirely different from Allcock's plasters, and that, as they believed, it was not anything like as good a make. The plaster sold to Mr. Heasman was the make of a chemist whose name, for the purposes of this inquiry, it was not necessary to mention. The hypothesis of the prosecution was that some person had called in the defendant's shop, had purchased an Allcock's plaster there, had had it applied in the shop, and that then this inferior plaster might have been placed between Allcock's wrappers and passed off as a plaster of their make to Mr. Heasman. They knew it was not one of Allcock's plasters, because a fragment of a Mr. Rudkin's political address was stuck over it, and before the issue of that address Mr. Brandreth had discontinued the use of the private stamp on plasters for Ireland.

Mr. James Johnson, patent agent, 4 Clayton Square, produced a certificate of the registration of Messrs. Allcock's private stamp as a trade-mark in the United Kingdom, the certificate being numbered 15,301, and he also produced the *Trade-marks Journal*, which at page 270 gives a description of the stamp.

Mr. Raffles: It is all in order, is it?

Witness: Yes, sir.

Mr. Joseph Watt Heasman, 22 Hamilton Square, Birkenhead, traveller and agent for Messrs. Allcock, proved the purchase of the spurious plaster. The plaster he bought for one of Allcock's plasters was different in make, in manufacture, and in preparation from Allcock's plasters. Even the name upon it was spelled "plaister," and not plaster as Allcock spelled it.

Mr. Raffles: But that is the correct way. Life is apparently too short with the Americans to spell it correctly. (Laughter.)

In cross-examination the witness said he could not say whether it was possible to supply boxes bearing the Irish stamp to wholesale houses in Liverpool. He was suspicious of this particular box because he knew that the private stamp upon it was only used to distinguish Irish goods.

Mr. Dodd: I will admit that the box may have come from our place through some large firm of wholesale chemists.

Mr. Henry Daubeney Brandreth having given evidence, Mr. Raffles said he should not be able to finish the hearing of the case at that time.

Mr. Martin put the question to his Worship whether he thought a fraud had been committed?

Mr. Raffles: It is with intent to defraud.

Mr. Martin: They must prove the intent.

Mr. Raffles: You prove the intent from their having given a plaster which is not the genuine plaster asked for by the purchaser.

Mr. Dodd: Yes; and a cheaper article.

Mr. Raffles: That is a question for a jury. What is your defence, Mr. Martin?

Mr. Martin said his defence was that it was perfectly impossible to tell how this had arisen. His clients bought the entire stock of their goods from Messrs. Evans & Co., who were as respectable a firm as any to be found in England or Ireland. Their manager was present to give evidence. The defendant's evidence would be that he never had in his possession more than twelve of these plasters of the make which was described as spurious. They had still eight, so that four had been sold in one way or another.

Mr. Dodd here held a whispered conversation with Mr. Martin.

Mr. Martin, continuing, said his friend said he did not wish to press this case after the explanation made. He himself had thought that this mistake might have arisen in Mr. Brandreth's office.

Mr. Raffles: As at present advised, I cannot see that there is any case for me. Therefore it will have to go elsewhere. I have no power to deal with it; it is a misdemeanour. If you and Mr. Dodd cannot agree here it had better go over. I will have the evidence written out.

Mr. Martin: I think you should say there is not sufficient evidence to go to a jury.

Mr. Raffles: I cannot.

Mr. Dodd: The only reason which influenced my clients to bring this case into court is that people are writing to them complaining that the plasters of other makers, of inferior quality, are being forced upon them.

Mr. Raffles: After what has been said I think it will be better to let the case rest at this point.

Mr. Martin: I am perfectly content.

Mr. Raffles: Everybody knows Messrs. Evans to be most respectable.

Mr. Martin: And my clients are just as respectable.

Mr. Raffles: You say it is a mistake, and if it is a mistake it is a pity to let it go further.

Mr. Martin: I only wish to clear my client's character.

Mr. Raffles: I think you have done so.

Mr. Dodd at this point consulted with Mr. Brandreth, and then, addressing the court, said—Mr. Brandreth is perfectly willing to accept the statement that this matter has arisen through some mistake.

The informations were thereupon withdrawn with the consent of the parties concerned, and they left the court with their legal representatives.



PHOTOGRAPHIC NOVELTIES.

MESSRS. MARION & Co., of Soho Square, the well-known wholesale dealers in photographic materials, have lately introduced a novelty which has excited a special interest among all classes of photographers, professional and amateur. They have produced a paper on which it is claimed an impression from a negative can be taken in less than five seconds; and, what is perhaps still more practically important, the printing can be accomplished in the duldest of daylight, or even by gaslight.

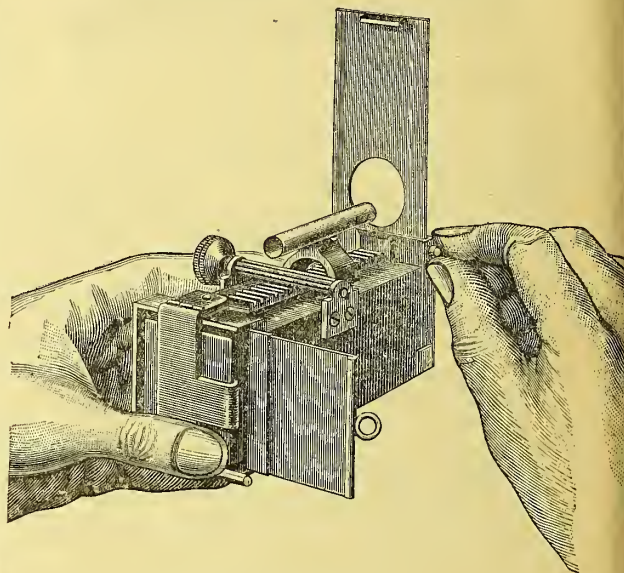
Hitherto, in general practice paper sensitised with chloride of silver has been for ordinary pictures universally employed. By no other process has it been possible to obtain pictures with the required warmth of tone and in all respects so well adapted for general requirements. One of the drawbacks to the silver-printing process has been the difficulty attending the printing in dull weather. Varying with the weather, as well as with the character of the negative, the production of the picture may occupy from ten minutes to three or four hours, or in some states of the atmosphere may not be possible at all. Some years ago Mr. Morgan, of Greenwich, brought out a paper rendered sensitive by a gelatino-bromide of silver, with which very rapid production was rendered possible, but which has not proved highly successful in regard to tone. It has been used chiefly for enlargements, which are afterwards worked up by hand. The exact chemical nature of Messrs. Marion's new paper is a trade secret, and the firm have resolved to work it as such, and not as a patent. Pictures printed on this paper are not visible till after "development," which is effected by ferrous oxalate. Hence some judgment is required as to the extent of exposure on the part of the operator. Toning and fixing are afterwards carried out in the usual manner. The final effect is not distinguishable by any but experts from the best silver-prints.

We also notice a new enlarging apparatus, made by Messrs. Marion & Co. It can be used in any room from which actinic light is excluded. The apparatus is easily adjusted, and camphene spirit is used as an illuminant. From the negative slide in the lantern a sharp image is obtained on a piece of cardboard on an easel, and then sensitised paper is substituted for the card, and the enlarged photograph is at once obtained. This apparatus can also be used as a magic lantern.

At this season Messrs. Marion & Co. are showing a great variety of novelties in the other branches of their business, as, for instance, in albums, photographs, &c. There has been a special run on Miss Fortescue lately among portraits. A fine series of instantaneous views of London, sold at a very moderate price, does real justice to the life and interest of the metropolis. Among new designs of albums the "Celebrities" is likely to be particularly popular. On every alternate page

surrounding the space for a central photograph are groups of lithographed portraits of persons representing statesmanship, letters, art, science, &c.

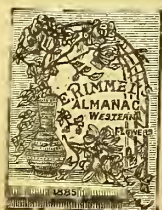
Another novelty just brought out by the same firm is a very soundly constructed "miniature camera," suitable for carrying in the pocket. The instrument itself is just double the



size of the illustration. It is constructed for plates $1\frac{1}{4}$ inch square, and yields pictures of very good definition and capable of successful enlargement.

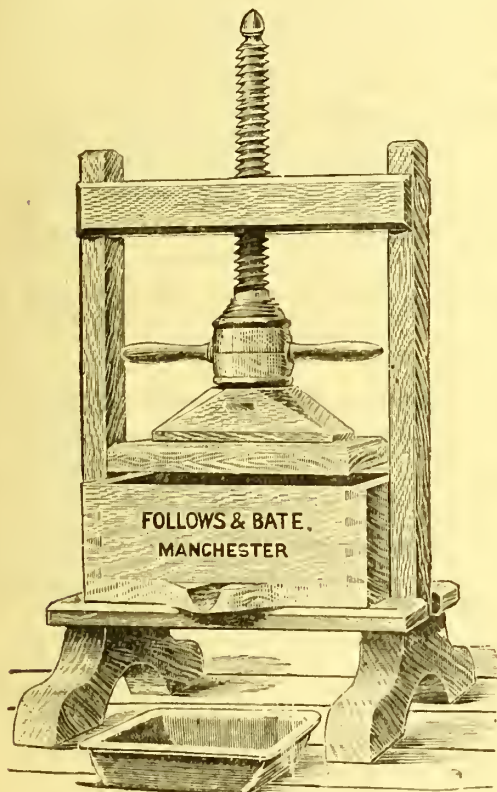
RIMMEL'S CHRISTMAS NOVELTIES.

RIMMEL'S PERFUMED ALMANACS for 1885, which ought to be a part of the stock of all chemists, are as brilliant to the eye and as odorous to the nose as ever. The small almanac contains heads of Canadian, Brazilian, Peruvian, and other beauties of the opposite hemisphere, and is entitled "Western Flowers." The "Comical Pocket-book Almanac" contains a series of sketches of representatives of various nations, all on the "light, fantastic toe." Mr. Rimmel maintains his place, amid sharp competition, for Christmas cards. Many of his are exquisite examples of artistic taste. They are supplied at all prices, from 6d. per dozen to a guinea each. His delicate conceits in packing soaps and scents always include some novelties. This year he hides bottles of scent in a reel of silk thread, in lucky shoes, in cradles, baskets, and fruits. Packets of soap and perfumery, neatly done up in miniature packing-cases, are very attractive. These are only specimens of Mr. Rimmel's extensive and very attractive stock.



FOLLOWS & BATE'S WOODEN TINCTURE-PRESS.

MESSRS. FOLLOWS & BATE (LIMITED), of Manchester, have lately added to their varied machinery suitable for druggists' and drysalter's uses a strong wooden tincture-press, intended for fruit and vegetable juices, syrups, essences, ketchup, and other fluids which would be injured by contact with metal.



The press is made of hard wood throughout, and is fixed in a strong frame. The spout is well raised from the ground, so as to admit of a vessel being placed beneath it to catch the product. In actual use we should much prefer an iron to a wooden screw, and we are told by the makers that there would not be the slightest objection to this, but that it would make an additional expense of about 1*l*. In larger wooden presses they use iron screws, and also have a ratchet-motion. The drawing above gives a correct representation of the press.

IN consequence of the death of Mr. Wigner, the editorship of the *Analyst* is now entrusted exclusively to Dr. John Muter.

MESSRS. LYNCH & Co. have brought to our notice a small but very handsomely lithographed list of Ricksecker's perfumes (New York), the style and size of each style of bottle being accurately represented.

BOY: "Five cents' worth of soda." Druggist: "You want the super-carbonate, I suppose?" Boy: "See here, mister; I don't want none of your chemical airs; what I want is s-o-d-y—sody."

ONE OF THE OLDEST REMEDIES.—Young man to chemist: "Can you give me anything to remove superfluous hair?" Chemist, thoughtfully scratching his bald head: "Hem! why don't you get married?"

Trade Notes.

MESSRS. BOURNE & TAYLOR have combined a little tinkling cymbal with an indiarubber teething-pad. The musical department is intended to occupy the baby's mental faculties while the india-rubber soothes its gums.

* *

MESSRS. OLDFIELD, PATTINSON & Co., wholesale druggists, of Manchester, have removed from 37 Long Millgate, to much more convenient premises at 17 Todd Street. Their new establishment, we are informed, is quite a model one.

* *

MR. F. J. BRETT, of Leicester, has bought from Messrs. Benedict & Co., of Liverpool, the patent and proprietary rights in the "medicated grapes," introduced by the latter firm, and noticed by us. Mr. Brett intends to bring them before the trade for retail sale as aperient, worm, cough, and digestive grapes.

* *

"DENTAL BRICKS" is the happy idea of Mr. William Alexander, chemist-dentist, Banff. They are small tablets of a pleasant dentrifice which, being crushed to a pulp by the teeth, are then rubbed on by a wet toothbrush. A small snap metal box, selling for 1*s*., contains 120 bricks.

* *

MESSRS. A. F. SCHWENKERT & W. G. WALLIS, of 112 Fleet Street, who represent Messrs. Meissner & Buch, of Leipzig, chromo-lithographic printers, have favoured us with specimens of the production of that firm in the way of Christmas and New Year cards. Their fac-similes of water-colour printings are very finely done, and in many instances the designs are exceptionally tasteful.

* *

THE usual proportion of dissatisfaction with the awards of the jury of the Health Exhibition has been expressed. The Spongy Iron Filter Company have refused the silver medal awarded them because, they say, "that reward is in opposition to all official reports during the past 10 years." Mr. Kingzett, F.I.C., writes to us on behalf of the Sanitas Company to explain that the bronze medal awarded them was for soap, not for disinfectants. The company have declined that award, and have entered a protest against what they regard as the unfair treatment of the jurors. Messrs. Thos. Christy & Co. ask us to state that the gold medal awarded them was for "rare and interesting food products." The value of the awards generally is somewhat depreciated by the fact that the names of the jurors have not been published.

* *

As an evidence of the powers of salicylic acid as a preservative agent, Dr. Von Heyden last year (1883), bottled some fresh grape must at Marsala, and added to each wine-bottle full " $\frac{1}{2}$ drachm av. d. p." = $5\frac{1}{2}$ grains of salicylic acid. Messrs. Burgoyne, Burbidges, Cyriax & Farries have some of these bottles as samples. The juice is perfectly sweet and has shown no sign of fermentation.

* *

NEW COMPANIES.

GEORGE MASON & Co.—Objects: To carry on business of manufacturers of, and dealers in, essence of meat. Capital, 20,000*l*., in 10*l*. shares. Signatories (with one share each): F. Charles Marshall, 38 Cambridge Gardens, Notting Hill; D. M. Roberts, 9 Castelnau Villas, Barnes; J. R. Haynes, 68 Limerston Street, Chelsea; J. H. Sams, 7 Edith Villas, West Kensington; G. Mason, 417 King's Road, Chelsea, S.W.; W. W. Wynne, 40 Chancery Lane; W. E. Wynne, 40 Chancery Lane. Number of directors not less than two nor more than five. Registered by W. W. Wynne & Son, 40 Chancery Lane.

Obituary.

BARBER.—On November 10, Mr. Thomas Barber, chemist and druggist, Salisbury. Aged 61.

BROTHERS.—On November 21, Mr. Francis Brothers, chemist and druggist, High Street, Ashford. Aged 77.

CAPPER.—On November 21, Mr. James Capper, chemist and druggist, Chester. Aged 70.

EWEN.—On November 7, Mr. James Ewen, senior partner in the firm of James Ewen & Sons, makers of clarified lard, &c.

GRIFFITHS.—On November 15, Mr. William Griffiths, pharmaceutical chemist, Swansea. Aged 64.

KEALL.—On November 1, Mr. Douglas Keall, chemist and druggist, Sittingbourne. Aged 38.

KOLBE.—On November 25, of heart disease, Dr. Herman Kolbe, Professor of Chemistry at Leipzig, aged 66. He was born at Allichausen, near Gottingen, where he studied chemistry under Wöhler. He was, for a time, fellow assistant with Frankland in Lyon Playfair's laboratory. In 1865 he took charge of the chemical laboratory at Leipzig University. He has made many important discoveries in organic chemistry, but he is probably best known commercially as the patentee of the process by which nearly all the salicylic acid in the market is produced. Only recently an improvement has been patented by which double the quantity of acid is obtained from the same amount of raw material.

LAMACROFT.—On November 23, at High Street, Putney, Mr. William Lamacroft, chemist and druggist. Aged 61.

MILWARD.—On November 12, Mr. Samuel Milward, chemist and druggist, Crown Terrace, Upper Holloway, London. Aged 45.

NOAD.—On December 2, 1884, Mr. Joseph Noad, chemist and druggist, of Broad Street, Reading. Aged 34. Mr. Noad had been in business in Reading for ten years, and had established a lucrative business. He served his apprenticeship with Mr. R. F. Martin, at Trowbridge, and subsequently married the daughter of that gentleman. Before settling at Reading he was for several years with the late Mr. Benjamin Humpage, at Turnham Green. Mr. Noad has left a widow and five young children.

PERKINS.—On December 4, Charles Lynham Perkins, A.P.S., at Rock Cottage, Torpoint. Aged 23.

RENSHAW.—Mr. Henry Renshaw, of the Strand, publisher of medical works, died on November 18, of angina pectoris. Aged 78.

ROBINSON.—On November 1, Mr. James Frodsham Robinson, chemist and druggist, Frodsham. Aged 46.

VOELCKER.—On December 5, at 39 Argyll Road, Kensington, Dr. Augustus Voelcker, F.R.S. Aged 62.

WATT.—On November 4, Mr. Geo. Wm. Watt, chemist and druggist, Glasgow. Aged 33.

WAVELL.—On November 20, Mr. Charles Hoad Wavell, chemist and druggist, Brighton. Aged 42.



[The following list has been compiled expressly for THE CHEMIST AND DRUGGIST by G. F. Redfern, Patent Agent, 4 South Street, Finsbury, London, and at Paris and Brussels.]

Aerated-drink Apparatus.—15,065.—G. W. Chinnery.—November 15, 1884. Improved portable apparatus for making and supplying aerated drinks.

Aluminium Chloride.—14,563.—November 4, 1884.—W. White, Improvements in the manufacture or production of aluminium chloride.

Ammoniacal Salt.—15,496.—November 25, 1884.—A. McDougall. Improvements in the manufacture of ammoniacal salts, and in the purification of gas.

Baryta and Strontia.—15,018.—Nov. 14, 1884.—A. C. Henderson.—A communication from J. Martin and E. Maume, of Lyons. Improvements in the manufacture of baryta and strontium.

Bottle-tool.—14,590.—November 5, 1884.—S. Skerritt. Tools for making external threads upon bottle necks or jars.

Bottles, &c.—15,688.—November 28, 1884.—D. Rylands. Improvements in bottles for containing aerated or gaseous liquids, and in means for stopping the same.

Bottles, &c.—15,689.—November 28, 1884.—D. Rylands. Improvements in bottles, and in the mode of stopping or closing the same.

Boxes.—15,943.—December 4, 1884.—P. S. Langley. Improvements in boxes for containing and expelling powders.

Bisulphide of Calcium.—15,182.—November 18, 1884.—J. W. Kynaston. Improvements in or relating to the manufacture of bisulphide of calcium or of other alkaline earth.

Caustic Soda, &c.—14,866.—November 11, 1884.—F. Boulton. Improvements in the manufacture of caustic soda and potash, and by-products therefrom.

Carbonic Oxide.—15,310.—November 20, 1884.—A. K. Huntington. Process for the separation of carbonic oxide from the products of furnaces or gas-producers.

Cooling-apparatus.—14,562.—November 4, 1884.—M. Phillips. Apparatus for cooling butterine, melted butter, ointments, lubricants, and other liquid or semi-liquid matter.

Corkscrew.—15,093.—November 17, 1884.—A. L. Adey. A corkscrew-cork.

Colouring Substance.—15,456.—November 24, 1884.—W. E. Gedge.—A communication from G. Jagenburg and C. Leverkus & Sons. An improved method of preparing alizarine and other anthracene colouring substances.

Discolouring Extracts, &c.—14,561.—November 4, 1884.—J. Don-treleau. Process of discolouring and purifying vegetable extracts containing tannin.

Distilling Fatty Substances.—14,700.—November 7, 1884.—W. P. Thompson.—A communication from M. Julien and M. Blumski. Improvements in the distillation of fatty substances and the like by means of superheated steam, and apparatus therefor.

Disinfectant.—14,864.—November 11, 1884.—J. Y. Johnson. A communication from E. O. Beck. A new or improved disinfectant.

Disinfectant.—15,599.—November 27, 1884.—A. D. Cohen. Improvements in disinfectants.

Dental Burring-engine.—14,891.—November 12, 1884.—F. H. Hallam. Improved band-piece for dental burring-engine.

Dentifrice.—15,020.—November 14, 1884.—S. Jennens. A new and improved dentifrice.

Dental tools.—15,509.—November 25, 1884.—J. G. Morey and L. B. Sturges. Improvements in dental tools.

Drawing Liquids.—15,406.—November 22, 1884.—A. K. Levi. Constant flow of fluid from a corked bottle without uncorking.

Feeding-bottles.—14,968.—November 13, 1884.—F. Rutard and F. Delas. Improvements in feeding-bottles.

Fatty Substances.—15,531.—November 23, 1884.—W. R. Lake.—A communication from A. F. Le Myé. Improvements relating to the purification of fatty or oleaginous substances and apparatus therefor.

Filters.—14,615.—November 5, 1884.—J. Howlett. Improvements in high-pressure water-filters, and in appliances for connecting the same to taps or valves of water supplies.

Filtering Oils.—14,678.—November 6, 1884.—B. H. Remmers and J. Williamson. An improved process of filtering paraffin oils, and of refining the solid paraffin obtained therefrom.

Filtering, &c., Medium.—14,770.—November 8, 1884.—G. H. Ellis. A new or improved manufacture of filtering, disinfecting, deodorising and decolourising medium.

Furnaces.—15,921.—December 3, 1884.—J. H. Johnson.—A communication from V. Alder. Improvements in furnaces for use in the production of cyanides or cyanurets from metals of the alkalis or of the alkaline earths, or for purposes of oxidation or reduction.

Liquid-strainers.—14,793.—November 10, 1884.—T. Batty. Improvements in strainers for paints, milk, or any other kind of liquid.

Obtaining sulphur.—14,603.—November 5, 1884.—J. Plummer. Improvements in obtaining sulphur from alkali waste.

Oxygen and Nitrogen Separator.—15,026.—November 14, 1884.—L. G. and A. Brin. Improvements in the separation and obtaining of oxygen and nitrogen from atmospheric air.

Oil-purifier.—15,812.—December 1, 1884.—W. L. Wise.—A communication from A. Skrobanek. Improvements in purifying oils and other fatty substances, and apparatus therefor.

Phosphates of Lime.—15,305.—November 20, 1884.—J. H. Darby. An improved process for obtaining phosphates of lime and the alkaline earths from metallurgical slags.

Soap.—14,681.—November 6, 1884.—C. R. A. Wright. Improvements in the manufacture of soap.

Retorts, &c., Lids.—15,447.—November 24, 1884.—S. Adams. Improvements in self-sealing mouthpieces and lids for retorts, stills, and generators, for the production of gas from coal and other substances; also for distillation of liquids and other chemical substances.

Stopping Bottles.—The following patents relating to stopping bottles have been taken between November 6 and December 4 :—14,680.—A. W. Birt.—14,939.—J. S. Davison.—15,033.—W. Smith.—15,281.—D. Rylands.—15,348.—F. Woodman.—15,424.—J. J. Varley.—15,445.—H. C. Sanders.—15,629.—J. Rebbla and T. Milnes.—15,641.—F. J. Beaumont and F. Hallows.—15,750.—B. B. Woods and D. Rylands.—15,828.—P. Fagan.—15,835.—T. McDonald.—15,893.—H. Hufeland.—15,914.—C. Cheswright.—15,924.—J. Hayslep and J. Morgan.—15,942.—H. Shaw.



DIVIDENDS.

RICHARDS, JOHN, Llandoverly and Pontardulais, chemical manufacturer. Div. of 3s. 7½d., on November 24 or any subsequent Monday, at 8 Quay Street, Carmarthen.

ADJUDICATIONS.

COLLING, ROBERT, 3 Central Buildings, Stockton, chemist and druggist, November 28. Court—Stockton and Middlesborough.

GRIFFIN, CHARLES, 121 Church Road, Islington, chemical and philosophical instrument maker. December 3. High Court of Justice.

RECEIVING ORDERS.

COLLING, ROBERT, 3 Central Buildings, Stockton, chemist and druggist, November 6. Examination November 19. Court—Stockton and Middlesborough.

GRIFFIN, CHARLES, 121 Church Road, Islington, late trading at 22 Garrick Street, as John J. Griffin & Sons, chemical and philosophical instrument maker. December 3. Examination January 23, at 11, at 34 Lincoln's Inn Fields. High Court of Justice.

HARGISON, JOHN COPE, 174 Western Road, Brighton, chemist and druggist, November 27. Examination December 18, at 12. Court—Brighton.

HOLMES, GEORGE, 44 King Street, Huddersfield, chemist and druggist and herbalist, November 17. Examination December 5, at 10. Court—Huddersfield.

COMPANIES WOUND UP.

PATENT MEDICINES PROPRIETARY (LIMITED). Claims by December 30. Official liquidator—E. L. Ernest, 4 Queen Street Place. Hearing January 16, at 12, at Justice Pearson's Chambers, Royal Courts of Justice, Strand. By order.

PACKHAM & Co. (LIMITED). Claims by January 5. Official liquidator—H. F. Knight, Devonshire Chambers, Bishopsgate Street Without. Hearing January 20, at 11, at Justice Clutton's Chambers, Royal Courts of Justice. By order.

PARTNERSHIPS DISSOLVED.

GAUBERT & KELLY, Blackfriars Road, chemists and druggists. November 21. (Stephen Gaubert and Francis Charles Kelly.)

HOBSON & OTTEY, Waterloo Street, Burton-upon-Trent, chemists and druggists. October 30. (Edwin Hobson and Thomas Ottey.) Debts by Ottey.

KING & Co., late St. Ann's Well Road, Nottingham, patent stopper manufacturers and mineral water manufacturers. September 27. (Alfred Thomas King and Andrew Edward Bailion.) Debts by King.

LIMERICK MEDICAL HALL, 137 George Street, Limerick. November 1. (Thomas Kane, Robert Ringrose Geistoa, and Miles V. Bourke.) Debts to R. Godley, 137 George Street, Limerick.

MOTET & BARKER, Greengate, Salford, bottlers' engineers and syphon and seltzogene makers. November 20. (Alphonse Motet and George Barker.) Debts by Motet.

SMITH BROTHERS, Halifax, horse and cattle medicine manufacturers. November 14. (Thomas Smith and William Smith.) Debts by T. Smith.

NOTICE OF COMPOSITION OR SCHEME, &c., UNDER BANKRUPTCY ACT, 1883.

BOYCE, FREDERICK, 12 Meadow Street, St. Paul's, Bristol, mineral-water manufacturer. Composition of 15s.; 6s. forthwith, and two instalments of 4s. 6d. within nine and twelve months. Court—Bristol.

Trade Report.

THE gross total value of imports into the United Kingdom in the month of November, 1884, was 30,752,453l. In November, 1883, it amounted to 36,526,437l. Of exports the total value was 17,704,213l. in November, 1884, against 20,054,698l. The shrinkage in the imports is chiefly owing to a very large reduction in the quantity and cost of food stuffs received, a fact which, to a great extent, indicates greater wealth to the country, resulting from a good harvest and from lower prices. In exports there is recorded for the month a decrease in every section of trade.

We quote the following items from the official returns :—

Imports.

	Nov., 1882	Nov., 1883	Nov., 1884
Quicksilver lbs.	29,475	30,800	60,000
Chemical manufactures .. value £	2,350	2,140	4,480
Peruvian bark ewt.	122,772	106,612	114,312
Gum arabic value £	13,635	7,458	8,487
Gum " value £	178,668	84,740	57,171
Gum " ewt.	6,467	6,227	4,256
Gum " value £	15,007	13,907	14,229
Gum " ewt.	12,851	6,278	11,507
Gum " value £	53,768	23,631	44,747
Drugs, "unenumerated"	80,416	83,220	49,083

Exports.

	Nov., 1882	Nov., 1883	Nov., 1884
Alkali ewt.	603,881	621,622	525,661
" value £	181,093	198,388	168,801
Bleaching materials ewt.	134,300	155,800	159,835
" value £	29,270	59,640	61,013
Medicines (comprising drugs and medicinal preparations)	83,294	79,524	72,808
Peruvian bark ewt.	3,857	8,133	10,027
" value £	35,683	53,684	48,185
Foreign chemicals (re-exported)	15,413	15,471	14,447

The remarkable decrease in the import of drugs and the fall of imports and rise of exports of Peruvian bark are the most noticeable features in the above table.

MINCING LANE, December 13.

We are reluctantly obliged to acknowledge that the improved tone which business lately assumed has to a great extent disappeared, and moreover, there is little hope of recovery at the end of the year; in fact, unless unforeseen circumstances should intervene, the business year is now practically finished in the Mincing Lane markets.

Such being the case, we shall not be considered premature in taking advantage of the present opportunity to look back upon the trade of the past twelve months. Taken generally we do not think the fleeting year will be remembered by many as a very prosperous one, although certain articles, either through enhanced value or reduced stocks, are in a better position now than at the commencement of the year, as will be observed by our remarks under their separate headings. The Board of Trade returns for the eleven months are not encouraging, and those for November are so disappointing as to have directly influenced the stock markets upon their being published, although we are inclined to think the deficit may be compensated for shortly in the coming months. It is probable that a large proportion of our usual trade with America, for instance, was checked for the time being by the all-absorbing elections which recently took place there, so that the lost business may now be expected to return. The Bank-rate has continued unchanged at 5 per cent., and judging by the sustained demand for gold for export a prompt reduction is hardly to be expected.

According to statistics, the mercantile failures of the year under the new Act have been far fewer than in the previous

one, although this statement must be accepted with a certain amount of reserve.

These statistics do not include, nor can they be expected to include, those settlements which now are so frequently effected with the strictest privacy, when none but the actual creditors are made aware of the facts; a composition is then agreed to, after which "business is resumed as usual." Even where a creditor sternly refuses to accept such composition out of Court, which his lamb-like colleagues have agreed to do, he is often paid in full rather than that his individual obstinacy shall be suffered to upset the "private arrangement."

Amongst the principal events of the year in the drug trade may be noticed the break-up of the quinine combination with the consequent great fall in prices, and the establishment of the iodine one.

The drug sales were held last Thursday, and being so near to the end of the year nearly everything offered had to be bought in. The next sales are fixed for Thursday, January 8, when more business may be confidently looked for.

ACIDS have throughout the year been quiet, citric especially so. Beginning at 1s. 6½d. per lb. it has gradually given way, with now and then an occasional rally, until at the finish we find it offering at 1s. 4¾d. per lb.

Tartaric has shown more animation, and prices for English make have varied from 1s. 6½d. to 1s. 8d. per lb., which was reached in October, when the demand for both that and foreign make was brisk.

Oxalic has stood at 6d. per lb. throughout.

ALOES have met with a fair consumptive demand, varying slightly in value from time to time, but finishing at about January prices.

ALUM maintained prices of 6l. for lump, and 6l. 10s. ground per ton, for first half-year, when prices, being reduced 2s. 6d. to 5s. per ton, a much better demand set in, which has since continued.

ANTIMONY.—*Crude* has varied from 23l. to 21l. per ton, with large supplies, and *Regulus* from 46l. to 42l. per ton.

ARSENIC improved from 10s. 9d. to 12s. 9d. per cwt. for powder, and the demand of late has been better than at the beginning of the year.

BALSAMS have been in a bad position throughout the year, and the demand for them appears to be much less now than formerly. *Peru* has declined from 9s. to about 7s. 6d. per lb. *Tolu* and *Capivi* have also depreciated to 1s. 9d. per lb.

BARK is now in healthier demand than at the commencement of the year, and increased business has lately taken place; notwithstanding which it is doubtful, considering the large stocks still in London, whether any serious advance in prices can yet be established. At the last public sales, although nearly the whole of the 1,300 packages of East Indian offered were sold, yet of 1,650 packages of South American offered only some 350 found buyers.

BLEACHING POWDER, which in January was worth 10l. 10s. to 11l. per ton, has declined to 8l. 10s., notwithstanding slight recoveries now and then.

BORAX has met with steady business, without variation from the prices fixed a year ago of 40s. to 42s. per cwt., and the Californian production at these rates appears to have been effectually shut out.

CALUMBA ROOT.—The large stocks existing at the commencement of the year have been partially cleared off, but prices have not improved.

CAMOMILE FLOWERS made good prices up to the appearance of the new crop in August, when the fine weather brought out such an abundant quantity that the price of new Belgians, which opened at 84s., fell in a fortnight to 46s. per cwt.; and these figures have gradually become further reduced, and good flowers are to-day obtainable at 40s. per cwt.

CAMPHOR.—Raw qualities have varied from 53s. to 70s. per cwt., reaching the highest point during the hostilities between France and China at the end of July. In refined qualities a large business has taken place through the year, especially when the cholera epidemic on the Continent reached the worst point.

CLOVES have experienced good business during the year, good bright Zanzibars varying in price from 4¾d. to 6d. per lb. Considerable business took place in May, but the top figure of 6d. was not reached until last month; this has since given way, and to-day's price is 5¾d. per lb. Present stock of 7,433 packages is about an average one.

COCHINEAL has been in better demand throughout the year at improving rates, until silvers are now quoted 1s. 3d. to 1s. 6d., Teneriffe 1s. 4d. to 1s. 7d., with fine qualities up to 1s. 9d. to 2s. per lb.

COD-LIVER OIL has receded considerably from January prices, and present quotations are from 3s. to 6s. per gallon, and at these figures business is difficult to obtain.

CREAM OF TARTAR, which began the year at 128s., through dearth of the raw material, was driven up at the beginning of last month to 133s. per cwt. It has since suddenly given way, however, and is to-day obtainable at 129s. per cwt.

CUBEBS began the year at 18l. per cwt., and the small stock gradually becoming still less, as much as 25l. per cwt. was asked in May. Just then, however, some small lots arrived, and this remarkable price was suddenly brought down to about half, and to-day's value for fair natural berries is steady at 10l. per cwt.

ERGOT OF RYE has ruled at from 8d. to 1s. per lb. for Spanish, but at no period of the year has the demand been brisk.

ESSENCE OF LEMON has gradually declined, and is now at its cheapest point. Spot stocks have been plentiful throughout the year, completely stopping business for arrival.

GALLS have varied from about 50s. to 57s. 6d. per cwt. for China sorts throughout the year, and in April some extensive business took place at low prices. At the present moment the demand is poor.

GENTIAN ROOT, which in the spring was worth 32s. 6d., has gradually declined, and is now quiet at 22s. 6d. per cwt.

GINGER experienced good business in September and October, when prices advanced fully 10 per cent., and the advantage then gained has since been fairly maintained.

GLYCERINE, which began the year at 75s. per cwt. for 1,260 chemically pure, gradually declined until present price of 50s. was reached in September, when the low figure attracted considerable business, and the market still has a firm aspect.

GUM ARABIC.—Turkey sorts have ranged from about 90s. to 110s. per cwt., varying continually according to the nature of the news received from Egypt. They close the year, however, at the lower rates, and with the most restricted trade.

HONEY.—The year has been remarkable for the quantity of really good honey offering of all descriptions, notwithstanding which, prices have been well maintained, owing, probably, to the increased consumption of the article.

IODINE, which for the first ten months ruled at 4d. per oz., is now, by the action of the combination, steady at 8½d.

IPECACUANHA has been in good steady demand, prices ruling from 2s. 6d. to 4s. per lb., according to quality.

ISINGLASS.—At the last monthly sales, held on November 25, only 335 packages East India were offered, and of these only 80 were placed at about previous rates. Next sales are fixed for December 16. Throughout the year the sales have experienced a heavy tone.

LEMON-JUICE has met with but little actual business during the past twelve months at prices ranging from 17l. to 19l. 10s. per pipe f.o.b. Messina, and the lowest is the present quotation.

MORPHIA SALTS are quiet at 6s. per oz., and have ruled at about that through the year, excepting for a short period, when price was dropped about 1s. per oz.

OPIUM began the year with a very firm outlook, which soon gave way, however, and from February to June trade was very restricted. Adverse reports concerning the new crop then coming in, a very firm tone with good business followed, lasting until September, since when a quiet tone has prevailed.

OILS.—*Aniseed* gradually declined from 7s. 6d. in January to 6s. 6d. per lb. in August, when it recovered to 7s., although now easier again at 6s. 9d. per lb. *American Peppermint Oil*.—Few articles have been more unsettled throughout the year than H. G. Hotchkiss oil. Starting at 12s. 6d. per lb., it improved to 13s. 6d. in March; then, falling back again to 12s. 6d. in May, it went suddenly up to 14s. 6d. in June, remaining at that until August, when it further advanced, and touched 16s. per lb.; from this it gradually declined again to 13s. 6d., afterwards recovering to 14s. 6d. per lb., to-day's quotation. *Japan peppermint oil*, 12s. 6d. per lb.

OTTO OF ROSES.—Prices have not varied much throughout the year for the lower qualities, although new-crop quotations for the best brands are slightly lower. A good business has taken place, and this year's yield is of particularly fine quality.

PETROLEUM OIL is quiet at following prices:—Spot, 6 9-16d. to 6 11-16d.; January-March, 6 7-16d. to 6½d. per gallon. The year's business generally has been of a restricted character. Considering the smallness of stocks, it is reasonable to suppose that, should the depletion go much farther, a rise in prices must soon be the result.

POTASH CHLORATE is firmer at 6d. per lb.

QUICKSILVER has increased in value, and importers' price has been further advanced to 6l. 15s. per bottle, although in second hands offers are now made at 10s. less. It is stated that the Californian product can be put down here now at a little over 6l. per bottle.

QUININE has met with considerable business since date of our last report, and Howard's price has been increased to 4s. 6d. per oz. for 1 oz. bottles. Quinine has experienced an eventful year; commencing at 8s. per oz., it only retained that price until January 21 (upon which day we may assume the combination was broken up) when it dropped to 6s. 6d., since then gradually reducing to present rates. The break-up of the combination with the several large public sales, the fire at Powers & Weightman's American works, and the unhappy failure of the Fabbrica Lombarda, are all elements which will make the present year ever remembered as a remarkable one in the history of this valuable article.

SAFFRON.—The new crops have arrived upon this market, and those shipped direct from Spain are of very fine quality; the crop being also a plentiful one, prices are about 10 per cent. cheaper all round.

SODA CRYSTALS.—Forced sales have brought price down to 3l. per ton ex ship.

SULPHATE OF COPPER, through increasing competition of makers, has been forced to lower prices of 18l. to 19l. per ton.

TURPENTINE is cheaper at following rates, and without demand. Spot and December 23s., January-April, 23s. 6d. to 23s. 9d. per cwt.

(FROM OUR AMERICAN CORRESPONDENT.)

NEW YORK, November 1.

The unprecedented interest taken in the Presidential election, and the state of suspense occasioned by the delay at arriving at a decision as to who was the successful candidate, kept the country fully occupied with political matters till the middle of November, and had a very serious effect on business, which almost came to a stand-still. Things have now returned to their normal condition, and, as if to make up for lost time, orders come pouring in, and the drug trade is so much improved that most staples, if they have not advanced, are held firmly at recent values, while the general outlook is cheering in the extreme. The export demand is not as large as could be wished, but is fairly satisfactory.

The following are the rates ruling for the principal export articles; the prices quoted in sterling in parentheses are the London equivalents of the rates prevailing here, all market deductions, discounts, &c., being taken into account:—

OIL OF PEPPERMINT.—In the early part of November the large orders in this market from London for H. G. Hotchkiss's brand caused a rapid advance to take place, and \$3.25 (15s. 4d.) was soon established. At this figure it still stands, but without any business passing, the advance being checked

by the cessation of exports, buyers at your side being apparently unwilling to go higher than \$3. They, however, have done well for themselves, having practically secured nearly half the crop from Wayne county, and when the consumption begins next summer, the great demand being during the months of June, July, and August, the result of their purchases will be felt. At present this market is higher than London, which certainly looks strange. In the meantime, owing to competition between bottlers and exporters of tin oil, the price in the growing districts has advanced from \$2.30, at which the new oil was bought in August, to \$2.75 actually paid the farmers last week. This is an advance of 1s. 10d. per lb. Even at the high figures now offered, only small quantities of oil can be bought, for, as already stated, half the crop at least has left the country, a portion of the remainder is required for home consumption, and the balance is held by the growers for very high figures, for they are well posted as to the course of events. Taking the price of the oil naked with the producer at \$27.5, and adding the 50c. per lb. usually added for commission, bottlers' profit, carriage to New York, &c., we arrive at \$3.25 (15s. 4d.), the present market value; in fact, it cannot be sold less at a profit, except by the very few who hold any stocks here, and these are smaller than they have been for years. The total crop in Michigan has been absorbed either for menthol manufacturing or for speculation. It is out of the hands of the growers.

BALSAMS.—*Copaiba* continues to arrive in large quantities, and, meeting with little attention, tends downward; prime Maranham can be bought at 37c. (1s. 8d.); clear Para, 40c. (1s. 9½d.); Maracaibo, rather cloudy and thin, 35c. (1s. 7d.). *Canada* is steady at \$2.80 per American gallon (1s. 7d.). *Tolu.*—Considerable attention has been attracted to this article by the advance in London, by some of the recent arrivals turning out to be *copaiba*, by a large parcel reported on the way being lost by shipwreck, and by its being discovered that the total arrivals for the past six months show a considerable falling-off from previous years. The market is firm at 40c. (1s. 9½d.), with every indication of higher rates.

BROMIDE POTASSIUM.—The combination of bromide-makers having raised the price of their product, manufacturers of this article now quote 30c. in small lots, and 29c. for 500 lbs. and over (1s. 3½d. 5 per cent.).

SPERMACETI is not dearer than last month, viz., 23c. (11½d.), but it is difficult to get delivery of any quantity. Some contracts, which take all made by a few of the manufacturers, transpire on Dec. 31: this may have the effect of reducing the price.

CALIFORNIAN HONEY.—There are only small supplies in this market, but, as the crop in California has been the best for years, there should be no dearth in your market: cargoes are reported on the way to Liverpool and London from San Francisco.

TONCA BEANS continue to decline; good frosted *Angostura* are selling from first hands in quantity at \$1.35 (5s. 10d.).

CUBEBS rule higher than in London, 45c. (11l.) being the value of prime.

COD-LIVER OIL.—Prime pale Newfoundland is higher: \$1.00 per American gallon has been paid (5s.).

ESSENTIAL OILS.—*Spearmint* is very scarce indeed, and meets with active demand from Germany at \$5 (21s. 3d.). *Sassafras*, as yet, arrives but slowly, and has not gone below 50c. (2s. 3d.) in export packages as yet. *Wintergreen* is quite neglected, even at the low price ruling.

ROOTS.—*Serpentaria*, as predicted, has continued to advance, and 60c. (2s. 8d.) has actually been paid. Stocks are really very small now. *Sarsaparilla.*—Honduras meets with good demand from the Continent; total stock, 160 bales, averaging from 35c. to 52c. (1s. 7d. to 2s. 4d.), according to brand. Mexican is still in short supply; small lots can be had at about 10½c. (5½d.). *Senega.*—Prime Western is still selling at 48c. (2s. 2d.), but is getting scarce. Late arrivals from the North-West are not as bright, clean, or slightly as first consignments. Chumpy dark roots are selling for 44c. (2s. 0½d.). *Mandrake Root* is in demand for Germany; it rules cheap this year—6c. (3½d.) per lb.

Monthly Price Current.

The prices quoted in the following list are those actually obtained in Mining Lane for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.

CHEMICALS.

		Last Month		This Month	
ACIDS.		s. d.	s. d.	s. d.	s. d.
Acetic	per lb.	0 2½	0 0	0 2½	0 0
pure	"	0 5	0 9	0 5	0 9
glacial	"	0 6	1 0	0 6	1 0
Benzoic Sublimate	per oz.	0 0	3 6	0 0	3 6
Ex Gum.	"	0 6½	0 0	0 6½	0 0
Citric	"	1 5	1 5½	1 4½	1 5½
Gallic	"	3 2	3 6	3 2	3 6
Hydrochloric	per cwt.	4 6	7 6	4 6	7 6
Nitric	per lb.	0 3	0 3½	0 3	0 3½
Oxalic	"	0 6	0 0	0 6	0 0
Sulphuric	"	0 0½	0 1	0 0½	0 1
Salicylic	"	6 9	9 6	6 9	9 6
Tannic	"	1 4	2 9	1 4	2 9
Tartaric, English	"	1 8	0 0	1 8	0 0
foreign	"	1 7½	0 0	1 7½	0 0
ANTIMONY, crude	per cwt.	21 0	0 0	21 0	0 0
star	"	41 0	43 0	41 0	43 0
ARSENIC, lump	"	22 0	24 0	22 0	24 0
powder	"	12 6	12 9	12 6	12 9
BRIMSTONE, rough	"	8 0	8 6	8 0	8 6
roll	"	8 9	10 0	8 9	10 0
flour	"	10 0	12 6	10 0	12 6
GLYCERINE, German	"	50 0	55 0	50 0	55 0
refined	"	37 6	42 6	37 6	42 6
crude brown	"	17 0	0 0	17 0	0 0
IODIFORM	per lb.	0 10½	0 0	0 8½	0 0
IODINE, dry	per oz.	1 0	0 0	1 0	0 0
resublimed	"	0 10	1 4	0 10	1 4
MAGNESIA, calcined	per lb.	5 0	0 0	5 0	0 0
Hwds.	"	115 0	0 0	125 0	135 0
MERCURY	per bot.	3 0	0 0	3 0	0 0
PRECIPITATE, red	per lb.	2 11	0 0	2 11	0 0
white	"	1 8	2 0	1 8	2 0
PRUSSIAN BLUE	"	11 6	0 0	11 6	0 0
SANTONINE	"	10 0	0 0	10 0	0 0
SALICINE	"	35 0	0 0	35 0	0 0
THYMOL	"	117 6	0 0	117 6	0 0
SALTS—		125 0	0 0	125 0	0 0
Alum	per ton	600 0	760 0	600 0	760 0
powder	"	307 6	0 0	307 6	0 0
Ammonia:		83 0	96 0	83 0	96 0
Carbonate	per lb.	70 0	90 0	70 0	90 0
Hydrochlorate,		38 0	42 0	38 0	42 0
crude, white	per ton	8 6	8 9	8 6	8 9
Sulphate	"	40 0	0 0	40 0	0 0
Argol, Cape	per cwt.	2 6	0 0	2 6	0 0
Red	"	4 5	4 7	4 5	4 7
Oporto, red	"	5 6	6 0	5 6	6 0
Bleaching powder	"	23 0	0 0	23 0	0 0
Borax, British refined	per lb.	55 0	0 0	55 0	0 0
Chalomet	"	1 11	0 0	1 11	0 0
Chloral hydrate	per lb.	133 0	0 0	129 0	0 0
Liebreich's	"	112 0	0 0	112 0	0 0
Copper:		3 6	5 0	3 6	5 0
Sulphate	per cwt.	4 0	5 0	4 0	5 0
Copperas, green	"	40 0	0 0	40 0	0 0
Corrosive Sublimate	per lb.	72 0	0 0	72 0	0 0
Cream Tartar, French	per cwt.	6 0	6 3	6 0	6 3
brown	"	2 3	2 4	2 3	2 4
Epsom Salts	"	0 3½	0 0	0 3½	0 0
Glauber Salts	"	29 0	0 0	29 0	0 0
Magnesia: Carbonate	per cwt.	46 0	46 6	46 0	46 6
Pond, Hwds.	"	0 5½	0 5½	0 5½	0 5½
Morphia Murias	per lb.	0 10	0 10½	0 10	0 10½
Phosphorus	per lb.	1 11	2 0	1 11	2 0
Potash:		10 6	11 6	10 6	11 6
Bichromate	"	1 4	1 6	1 4	1 6
Carbonate:		9 0	0 0	9 0	0 0
Potashes, Canada,		12 0	0 0	11 9	12 0
1st sort	per cwt.	29 0	0 0	29 0	0 0
Pearlshes, Canada,		46 0	46 6	46 0	46 6
1st sort	"	0 5½	0 5½	0 5½	0 5½
Chlorate	per lb.	0 10	0 10½	0 10	0 10½
Prussiate	"	1 11	2 0	1 11	2 0
red	"	10 6	11 6	10 6	11 6
Sulphate	per cwt.	1 4	1 6	1 4	1 6
Potassium:		9 0	0 0	9 0	0 0
Bromide	per lb.	12 0	0 0	11 9	12 0
Chloride	per cwt.	29 0	0 0	29 0	0 0
Iodide	per lb.	46 0	46 6	46 0	46 6
Quinine:		0 5½	0 5½	0 5½	0 5½
Sulphate, British, in	per oz.	4 3	0 0	4 6	0 0
bottles	"	3 9	0 0	4 0	0 0
Sulphate, French	"	3 6	3 9	3 8	3 9
Sulphate, German	"	0 8½	0 0	0 8½	0 0
Sal Acetos	per lb.	40 0	42 0	40 0	42 0
Sal Ammoniac, British	per cwt.	16 3	16 6	16 3	16 6
Saltpetre:					
Bengal, 6 per cent. or	"				
under	"				

Saltpetre:—(cont.)

Bengal, over 6 per	per cwt.	16 0	to 0 0	16 0	to 0 0
cent.	"	22 3	23 3	22 3	23 3
British, refined	"	7 9	8 0	7 9	8 0
Soda: Bicarbonate	"	45 0	0 0	45 0	0 0
Hwds.	"				
Carbonate:					
Soda Ash	per deg.	0 1½	0 0	0 1½	0 0
Soda Crystals	per cwt.	3 3	0 0	3 0	0 0
Caustic	"	8 9	9 3	8 9	9 3
Hyposulphite	"	7 9	8 0	7 9	8 0
Nitrate	"	11 3	0 0	11 3	0 0
Zinc Sulphate	"	12 0	14 0	12 0	14 0
SUGAR OF LEAD, White	"	30 0	34 0	30 0	34 0
Brown	"	26 6	0 0	26 6	0 0
VERDIGRIS	per lb.	0 9½	1 0	0 9½	1 0
VERMILION, English	"	2 3	0 0	2 3	0 0
China	"	2 4	0 0	2 4	0 0
DRUGS.					
ALOES, Hepatic	per cwt.	70 0	85 0	60 0	80 0
Socotrine	"	60 0	150 0	60 0	150 0
Cape, good	"	35 0	40	35 0	40
Inferior	"	22 6	30	22 6	30
Barbados	"	50 0	130 0	40 0	120 0
Curacao	"	40 0	95 0	40 0	95 0
AMBERGRIS, grey	per oz.	60 0	80 0	60 0	80 0
BALSAM—					
Canada	per lb.	1 10	2 0	1 10	2 0
Capivi	"	1 9	1 10	1 9	1 10
Peru	"	7 6	7 8	7 6	7 8
Tolu	"	1 10	2 0	1 10	2 0
BARKS—					
Canella alba	per cwt.	25 0	27 6	25 0	27 6
Cascarilla	"	40 0	45 0	40 0	45 0
CINCHONA—					
Peru, grey	per lb.	0 9	1 8	0 9	1 8
Calisaya, flat	"	0 6	2 0	0 6	2 0
quill	"	0 9	2 6	0 9	2 6
Carthagena	"	0 4	1 0	0 4	1 0
Columbian	"	0 6	1 9	0 6	1 9
Cuprea	"	0 3	1 4	0 3	1 4
New Granada	"	0 7	2 0	0 7	2 0
Pitaya & Maracabo	"	0 4	1 5	0 4	1 5
Red	"	2 0	9 0	2 0	9 0
East India, crown	"	0 6	2 0	0 6	2 0
red	"	0 4	2 3	0 4	2 3
BUCU LEAVES	"	0 2	1 0	0 2	1 0
CAMPHOR, China	per cwt.	52 6	53 0	52 6	53 0
Japan	"	53 0	54 0	53 0	54 0
Refin. Eng.	per lb.	0 11	0 0	0 11	0 0
Tablets	"	0 11	0 0	0 11	0 0
CANTHARIDES, China	"	2 6	3 0	2 6	3 0
Russian	"	6 6	7 0	6 6	7 0
CAMOMILE FLOWERS	per cwt.	38 0	40 0	35 0	40 0
CASTOREUM	per lb.	26 0	38 0	26 0	38 0
CHIRETTA	"	0 3½	0 4½	0 3½	0 4½
DRAGON'S BLOOD, Ip.	per cwt.	70 0	240 0	70 0	240 0
ERGOT OF RYE	per lb.	0 6½	0 10	0 6½	0 10
FRUITS & SEEDS (see also Seeds and Spices)					
Anise, China Star	per cwt.	95 0	100 0	95 0	100 0
Russian	"	20 0	30 0	20 0	30 0
Beans, Tonquin	per lb.	3 0	5 0	3 0	5 0
Cardamoms, Malabar,					
good	"	6 0	7 0	6 0	7 0
inferior	"	3 0	4 0	3 0	4 0
Aleppy	"	3 0	4 6	3 0	4 6
Madras	"	1 6	3 6	1 6	3 6
Ceylon	"	2 0	2 10	2 0	2 10
Malabar sorts	"	4 0	7 0	4 0	7 0
Cocculus Indicus	per cwt.	11 0	13 0	11 0	13 0
Colocynth, apple	per lb.	0 10	1 3	0 10	1 3
Cubeb	per cwt.	200 0	280 0	180 0	220 0
Cummin	"	30 0	34 0	30 0	34 0
Fennugreek	"	10 0	12 0	10 0	12 0
Juniper Berries	"	8 6	11 0	8 6	11 0
Nux Vomica	"	7 6	10 0	7 6	10 0
Tamarinds, E. India	"	8 0	12 0	8 0	12 0
W. India	"	18 0	20 0	18 0	20 0
Vanilla, large	per lb.	20 0	25 0	20 0	25 0
inferior	"	8 0	18 0	8 0	18 0
FLOWERS—Dalmatian	"	60 0	90 0	60 0	90 0
Caucasian	"	95 0	0 0	95 0	0 0
HONEY, Chili	per cwt.	25 0	50 0	25 0	50 0
Jamaica	"	26 0	38 6	26 0	38 6
IPECACUANHA	per lb.	2 6	3 6	2 6	3 6
ISINGLASS, Brazil	"	2 0	4 3	2 0	4 3
Tongue sort	"	1 6	4 10	1 6	4 10
East India	"	1 0	3 11	1 0	3 11
West India	"	2 9	3 10	2 9	3 10
Russ. leaf	"	7 0	10 0	7 0	10 0
Slmovia	"	2 2	2 4	2 2	2 4
JALAP, good	"	0 7	0 9	0 7	0 9
infer. and stems	"	0 6	0 7	0 6	0 7
LEMON JUICE	per deg.	0 0	0 0	0 0	0 0
LIME JUICE	per gall.	1 6	0 0	1 6	0 0
LIQUORICE, Spanish	per cwt.	55 0	100 0	55 0	100 0
Liquorice Root	"	12 0	20 0	12 0	20 0
MANNA, flaky	per lb.	4 6	5 0	4 6	5 0
MUSK, Tonquin pod	per oz.	66 0	73 0	66 0	73 0
Grain	"	45 0	80 0	45 0	80 0
Yunan pod	"	29 0	35 0	29 0	35 0
OILS (see also separate list)					
Almond, expressed	per lb.	1 3	1 5	1 3	1 5
Castor, 1st pale	"	0 3½	0 3½	0 3½	0 3½
second	"	0 3½	0 3½	0 3½	0 3½
Cod-liver	per gall.	4 6	6 6	3 0	6 0

		Last Month			This Month		
		£	s.	d.	£	s.	d.
Essential Oils:							
Almond	per lb.	30	0	to 0	30	0	to 0
Anise-seed, star	"	6	9	to 10	6	9	to 10
" German, &c.	"	8	0	to 13	8	0	to 13
Bergamot	"	5	6	to 6	5	6	to 6
Cajuput	per bot.	3	3	to 0	3	3	to 0
Caraway	per lb.	5	6	to 0	5	6	to 0
Cassia	"	3	9	to 4	3	9	to 4
Cinnamon	per oz.	1	9	to 2	1	9	to 2
Cinnamon-leaf	"	0	23	to 0	0	23	to 0
Citronelle	"	0	1	to 2	0	1	to 2
Clove	per lb.	3	3	to 3	3	3	to 3
Juniper	"	1	6	to 2	1	6	to 2
Lavender, Exotic	"	6	9	to 8	6	9	to 8
" Miteham	"	60	0	to 0	60	0	to 0
Lemon	"	4	0	to 5	4	0	to 5
Lemongrass	per oz.	0	1	to 2	0	1	to 2
Neroli	"	7	0	to 0	7	0	to 0
Nutmeg	"	0	8	to 0	0	8	to 0
Orange	per lb.	8	0	to 10	8	0	to 10
Otto of Roses	per oz.	15	0	to 34	15	0	to 34
Patchouli	"	1	4	to 2	1	4	to 2
Peppermint:							
American	per lb.	12	0	to 0	12	0	to 0
(H. G. Hotchkiss) ..	"	14	0	to 0	14	6	to 0
English	"	27	6	to 30	27	6	to 30
German	"	8	0	to 14	8	0	to 14
Japan	"	7	0	to 9	12	6	to 9
Menthol crystals ..	"	36	0	to 45	36	0	to 45
Rosmary	"	2	6	to 3	2	6	to 3
Sassafras	"	2	6	to 0	2	6	to 0
Spearmint	"	12	0	to 14	12	0	to 14
Thyme	"	2	6	to 0	2	6	to 0
Mace, expressed ..	per oz.	0	2	to 0	0	2	to 0
Opium, Turkey	per lb.	15	0	to 17	15	0	to 17
" inferior	"	11	0	to 13	11	0	to 13
Quassia (bitter wood)	per ton	50	0	to 60	50	0	to 60
Rhubarb, China, good	per lb.	1	6	to 3	1	6	to 3
and fine	"	1	1	to 1	1	1	to 1
Middling to fair ..	"	1	1	to 1	1	1	to 1
ROOTS—Calumba							
China	per cwt.	22	0	to 30	22	0	to 30
Cus-Cus	"	20	0	to 0	20	0	to 0
Galangal	"	30	0	to 21	30	0	to 21
Gentian	"	21	6	to 0	21	6	to 0
Orris	"	22	6	to 25	22	6	to 25
Pellitory	"	23	0	to 50	23	0	to 50
Pink	per lb.	68	0	to 80	68	0	to 80
Rhatany	"	1	6	to 0	1	6	to 0
Seneka	"	0	5	to 0	0	5	to 0
Snake	"	2	4	to 2	2	4	to 2
Saffron, Valencia	"	1	6	to 0	1	6	to 0
Alicante	"	32	0	to 38	30	0	to 35
Sarsaparilla, Lima	"	25	0	to 28	23	0	to 25
Guayaquil	"	0	6	to 1	0	6	to 1
Jondras	"	1	2	to 1	1	2	to 1
Jamaica	"	1	0	to 1	1	0	to 1
Sassafras	per cwt.	1	6	to 1	1	6	to 1
Scammony, Virgin	per lb.	0	0	to 0	0	0	to 0
second and ordinary ..	"	32	0	to 35	32	0	to 35
Senna, Bombay	"	15	0	to 28	15	0	to 28
Tinnivelly	"	0	2	to 0	0	2	to 0
Alexandria	"	0	3	to 1	0	3	to 1
Spermacein, refined ..	"	0	9	to 1	0	9	to 1
American	"	0	1	to 3	0	1	to 3
Sothlis	"	0	1	to 0	0	1	to 0
GUMS.							
AMMONIAC, drop	per cwt.	£	s.	£	s.	£	s.
ANIM, fine washed	"	2	10	to 3	2	5	to 2
sorts	"	18	0	to 20	19	0	to 20
ARAMB, pale picked ..	"	13	0	to 17	13	0	to 17
sorts, mid, to fine ..	"	2	15	to 3	2	15	to 3
TURKEY, pick, gd. to fin.	"	1	10	to 2	1	10	to 2
second & inferior ..	"	9	0	to 9	7	0	to 8
sorts	"	6	10	to 8	6	10	to 8
ASAFOETIDA, cm. to fin.	"	4	5	to 4	4	10	to 5
BENJAMIN, Siam, 1st	"	1	5	to 3	1	5	to 3
& 2nd	"	15	0	to 34	15	0	to 34
Sumatra	"	5	0	to 11	5	0	to 11
COPAL, Manila	"	s.	d.	s.	d.	s.	d.
Angola, red.	"	15	0	to 67	15	0	to 67
DAMAR, pale	"	145	0	to 152	145	0	to 152
EUPHORBUM	"	77	6	to 90	77	6	to 90
GALBANUM	per lb.	12	6	to 20	12	6	to 20
GAMBAGE, picked pipe	per cwt.	0	3	to 0	0	3	to 0
GUAIACUM	per lb.	230	0	to 300	230	0	to 300
KINO	per cwt.	0	9	to 2	0	6	to 2
KOWRIE, sorts	"	45	0	to 0	45	0	to 0
selected	"	45	0	to 60	45	0	to 60
MASTIC, picked	per lb.	115	0	to 260	115	0	to 260
MYRRH, good and fine ..	per cwt.	1	6	to 3	1	6	to 3
ordinary to fair	"	100	0	to 150	100	0	to 150
OLIBANUM, p. drop	"	80	0	to 140	80	0	to 140
amber and yellow ..	"	34	0	to 39	38	0	to 45
SENEGAL	"	36	0	to 0	29	0	to 37
SANDARAC	"	40	0	to 45	40	0	to 45
SHELLAC, Orange	"	90	0	to 110	60	0	to 112
LIVER	"	63	0	to 82	63	0	to 82
TRUS	"	61	0	to 64	61	0	to 64
TRIACANTH, leaf	"	25	0	to 0	25	0	to 0
in sorts	"	140	0	to 200	180	0	to 280
	"	20	0	to 180	20	0	to 180
OILS.							
SEAL, pale	per tun	£	s.	£	s.	£	s.
	"	27	10	to 23	27	10	to 23
Oils:—(cont.)							
SEAL, yellow to tinged ..	per tun	24	0	to 27	24	0	to 27
" brown	"	23	10	to 24	23	10	to 24
SPERM	"	57	0	to 0	57	0	to 0
COD	"	32	0	to 35	32	0	to 35
WHALE, South Sea, pale	"	24	0	to 25	23	0	to 25
" yellow	"	23	0	to 27	22	0	to 23
" brown	"	22	0	to 22	20	0	to 21
Sardine	"	25	0	to 27	25	0	to 27
OLIVE, Seville	per ton	39	0	to 40	41	0	to 42
Gioja	"	36	0	to 37	36	0	to 37
Levant	"	41	0	to 41	41	0	to 41
Mogador	"	35	10	to 36	35	10	to 36
Spanish	"	39	0	to 40	41	0	to 42
Sicily	"	39	0	to 0	41	0	to 0
COCOANUT, Cochinchina	"	33	0	to 33	33	0	to 33
Ceylon	"	32	0	to 32	32	0	to 32
Mauritius	"	0	0	to 0	0	0	to 0
PALM, fine	"	34	0	to 34	34	0	to 34
LINSEED	"	20	15	to 21	20	15	to 21
RAPESEED, English, pale	"	27	15	to 0	27	15	to 0
" brown	"	26	0	to 0	26	0	to 0
COTTONSEED	"	25	0	to 26	25	0	to 26
LARD	"	41	0	to 43	41	0	to 43
TALLOW	"	28	10	to 45	28	10	to 45
TURPETINE, American	per cwt.	23	0	to 23	23	0	to 23
PETROLEUM, refined ..	per gall.	0	6	to 0	0	6	to 0
Spirit	"	0	7	to 0	0	7	to 0
SEEDS.							
CANARY	per qr.	45	0	to 60	56	0	to 62
CARAWAY, English	per cwt.	0	0	to 0	0	0	to 0
" German, &c.	"	18	0	to 26	18	0	to 26
CORIANDE	"	10	0	to 21	10	0	to 21
HEMP	per qr.	38	0	to 0	38	0	to 0
LINSEED, English	"	0	0	to 0	0	0	to 0
Black Sea & Azof	"	40	0	to 0	40	0	to 0
Calcutta	"	44	3	to 0	44	3	to 0
Bombay	"	43	6	to 44	43	6	to 44
St. Petersburg	"	35	0	to 38	35	0	to 38
MUSTARD, brown	per bush.	10	0	to 15	10	0	to 15
white	"	8	0	to 12	8	0	to 12
POPPY, East India	per qr.	43	0	to 0	43	0	to 0
SPICES.							
CASSIA LIGNEA	per cwt.	28	6	to 29	28	6	to 29
Vera	"	18	0	to 23	18	0	to 23
Buds	"	34	0	to 0	34	0	to 0
CINNAMON, Ceylon:							
1st quality	per lb.	1	0	to 2	0	9	to 2
2nd ditto	"	1	0	to 2	0	6	to 1
3rd ditto	"	0	8	to 1	0	5	to 1
Tellicherry	"	0	0	to 0	0	0	to 0
Chips	"	0	2	to 0	0	2	to 0
CLOVES, Penang	"	1	3	to 1	1	3	to 1
Ambonya	"	0	8	to 0	0	8	to 0
Zanzibar	"	0	5	to 0	0	5	to 0
GINGER, Jam., fine	per cwt.	90	0	to 0	90	0	to 0
Ord. to good	"	55	0	to 75	55	0	to 75
African	"	47	0	to 0	47	0	to 0
Bengal	"	47	0	to 0	35	0	to 40
Malabar	"	0	0	to 0	0	0	to 0
Cochin	"	48	0	to 115	48	0	to 115
PEPPER, Black, Malabar	per lb.	0	7	to 0	0	7	to 0
Singapore	"	0	7	to 0	0	7	to 0
White	"	0	10	to 0	0	10	to 0
Cayenne	"	0	6	to 0	0	6	to 0
MAICE, 1st quality	"	1	3	to 1	1	3	to 1
2nd and inferior	"	1	1	to 1	1	1	to 1
NUTMEG, 78 to 60 to lb.	"	2	6	to 3	2	6	to 3
90 80	"	2	3	to 5	2	3	to 5
132 95	"	1	7	to 2	1	7	to 2
PIMENTA	"	0	2	to 0	0	2	to 0
VARIOUS PRODUCTS.							
COCHINEAL—							
Honduras, black	per lb.	1	3	to 1	1	6	to 2
" silver	"	1	1	to 1	1	3	to 1
Mexican, black	"	1	2	to 1	1	4	to 1
" silver	"	1	0	to 1	1	2	to 1
Teneriffe, black	"	1	3	to 1	1	6	to 2
" silver	"	1	0	to 1	1	3	to 1
GALLS, Tky blue	"	40	0	to 50	40	0	to 50
" China	"	35	0	to 45	35	0	to 45
INDIGO, Bengal	"	3	0	to 8	3	0	to 8
" Madras	"	1	5	to 6	1	5	to 6
" Kurpah	"	2	0	to 5	2	0	to 5
" Onde	"	1	6	to 5	1	6	to 5
" Guatemala	"	1	6	to 4	1	6	to 4
ROBIN, American	per cwt.	4	9	to 12	4	9	to 12
SOAP, Castile	"	28	0	to 0	28	0	



Dispensing Difficulties.

227/19. *F. H. F.*—Acetic acid, egg albumen, rectified spirit and water, of each 1 part, turpentine $\frac{3}{10}$ th, make a cream-coloured emulsion. Mix the albumen and water together, add to this, and with constant shaking of the bottle, the acetic acid by tenths; dissolve the turpentine in the spirit and add this also by tenths, and with vigorous shaking.

257/39. *C. Q.* finds that the following pill-masses liquefy, and can only get them stiffened by evaporation:—

I.						Grains
Acid. carbol.	..	..	..	..	..	12
Pil. aloes dil.	..	..	..	..	..	12
Quinæ disulph.	..	..	..	..	..	12
Ext. nucis vom.	..	..	..	..	..	6
Pulv. capsici	..	..	..	..	..	6
Mft. pill. xij. Silvered.						

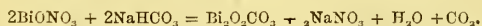
II.						Grain
Quinæ sulphi.	..	..	..	..	..	1
Thymol	..	..	..	..	..	1
Ext. nucis vom.	..	..	..	..	..	1
P. ipecac.	..	..	..	..	..	$\frac{1}{2}$
P. capsici	..	..	..	..	..	$\frac{1}{2}$
Mitte xij. Ft. pil. j.						

Evaporation gets rid of the carbolic acid and thymol, which are the cause of the softening, so that this plan must not be followed. In No. 1 use absolute phenol, rub it down to powder along with the powder ingredients of pil. aloes dil., the powdered capsicum, and 6 grains of powdered liquorice, add the quinine and 3 grains of tragacanth powder, and mass quickly with the extract. The softness of the mass varies with the dexterity of manipulation; a further addition of 3 grains of liquorice will give the desired stiffness if the resulting mass should be too soft.

In No. 2 rub down the thymol, and mix intimately with the ipecac. and capsicum, and with 3 grains each of tragacanth and liquorice, add the quinine, and mass quickly with the extract. This gives a tolerably good mass.

We may explain that when quinine is rubbed up with carbolic acid or thymol liquefaction is the result, as when thymol and camphor or camphor and chloral are rubbed together. Hence the softness of the above masses.

226/69. *Student, Portsmouth.*—(1) In mixtures containing subnitrate of bismuth and bicarbonate of soda, the following reaction occurs:—



It has been recommended to substitute subcarbonate for subnitrate of bismuth, and this is what the *knowing* ones of pharmacy generally do. To dispense as written, rub the bismuth and soda together with an ounce or two of boiling water, which accelerates the change.

(2) Put the bismuth and soda into the bottle with 3 oz. of water and shake well, then add the mucilage.

(3) *Liq. calc. sacch.* is more a solution of *saccharated lime* than a *saccharat-d solution* of lime. A loose compound of lime and sugar is formed which is much more soluble in water than lime alone.

(4) "What is the cause of the green colour in ung. eetacei?" We have not noticed it. Oxidation, or in other words rancidity, we expect.

(5) A mixture of alcohol and water is of smaller bulk than the combined bulks before admixture (5 oz. of rectified spirit and 3 oz. of water give less than 8 oz. of proof spirit). The result is that latent heat is set free (you will have noticed the warmth of the mixture), and this helps to drive out the air dissolved in the water and probably also a little alcohol. Hence the effervescence.

W. L. Soluble Essence of Ginger.—Dr. Thresh's experiments in preparing a valuable essence of ginger give the best published formula. We have repeated his directions several times. Make an essence of ginger with strong rectified spirit, dilute with about half its volume of water, and shake up with silica or powdered pumice; then add a drop or two of essential oil of ginger (costing about 3s. an oz.) to restore the aroma. Several firms advertise soluble essence of ginger in this journal.

Legal Queries.

56/222. *Election.*—Cyanide of potassium, and all metallic cyanides and their preparations, are included in the first part of the poison schedule of the Pharmacy Act, and therefore can only be sold (retail) by a registered chemist, and by him must be labelled and the sale registered in the form required. Wholesale transactions are, however, permitted to unregistered persons by sec. 16 of the Act. But whether sold by wholesale or retail, the registration and labelling are legally insisted upon.

Inquisitive (40/250) asks, Does a patent containing arsenic require to have the words "Arsenic"—"Poison," on it?

[We should say yes; and we should say further, that the other formalities necessary in selling arsenic and its preparations ought to be fulfilled.]

Do you think that word would hurt the sale if so labelled?

[That depends on what the "patent" is. We should suppose such a label would damage the sale of a cough mixture, but it might not spoil the trade in a vermin-killer.]

Is it necessary to label arsenical preparations with the name and "poison" in wholesaling such for dispensing?

[It is necessary to label the container of a poison with the name of the article, the word "poison," and the name and address of the seller, in wholesale as well as in retail transactions. See section 17, Pharmacy Act, 1868.]

Why does Kay label his linseed "Poison," while Collis Brown's preparation is allowed to go unlabelled?

[We think Kay follows the law.]

53/223. *Perplexity.*—Your question is outside our range, and, besides, is not sufficiently clear. However, we may state that on a person dying intestate, his *real* property passes to the eldest surviving son. Personal property, however, is differently and more equitably treated if there be a widow and children.

W. E. A.—You understand, we presume, that, though you may practise dentistry, you may not use the title "dentist" until you are registered. The 37th clause of the Dentists Act reserved certain rights to pupils who were, at the date of passing it, actually articled to dentists. Perhaps the case you allude to is thereby explained.

263/40. **Opposing the Registration of a Trade-mark.**—*A*

Wracombe.—A trade-mark for registration of which application has been made must be advertised in the *Trade Marks Journal*. Notice of opposition must be forwarded to the registrar in duplicate on prescribed forms, to be obtained from the Trade Marks Registry Office, 25 Southampton Buildings, W.C., accompanied by a fee of 1*l.*, within two months of the date of the advertisement. It is no use to lodge a protest with your opponents. It must go straight to the registrar. All necessary formalities are undertaken by agents, and an advertisement of one firm will be found in our pages. One copy of the notice will be forwarded to the applicant, who must furnish his reply within twenty-one days, or his application will be considered withdrawn. Within fourteen days of the receipt of this reply the opponent must furnish security for costs to the satisfaction of the registrar, or his opposition will be cancelled.

226/36. *Mr. H. Robinson* (Baildon, near Leeds) writes:—"I put up a cough mixture, which I advertise in the village, and some months ago I put a number of dummies in the window, but, instead of the Government stamp round the top over the wrapper, I put the ordinary address-hand. Of course, I stamp all that goes out, properly. An inspector came in the other day, and asked if they were stamped—meaning the dummies. I stated to him what they were, showed him a genuine bottle with the stamp on it, and told him he could examine any of the dummies, if he liked, which were simply empty bottles, wrapped. Instead of doing so, he "advised" me to take them out, and left. I have not taken his advice, and, as I am not aware that I am infringing any Act of Parliament, I don't intend to. Am I right?"

[The Medicine Stamp Act attaches the penalty against "exposing for sale," as well as against actually selling; but if only dummies are exposed they could not be brought under the description in the Act as medicines or medicaments.]

Manipsa asks:—"Would a chemist styling himself a 'dental chemist,' be liable to prosecution as contravening the Dentists Act?" It is impossible to answer the question conclusively. The Act prohibits the employment by an unqualified person of "any name, title, addition, or description implying that he is registered. It also expressly prohibits the adoption by such a person of the title "dental practitioner." We should presume the title "dental chemist" would be analogous, but it would be for a judge to decide.

62/227. **Mixed Perfume.**—For **Scenting Hair-oil** it is better to use less quantity of a good scent than a larger quantity of inferior perfume. Bergamot 4 oz., lemon 2 oz., cloves 1 oz. is a good mixture, and to this can be added a little otto of rose, oil of rose geranium, or essence of petit grain if a higher quality be required. Piesse's "Art of Perfumery," published by Longmans, is a good one.

"Chemists' Long Hours."*To the Chemist and Druggist—*

SIR,—The controversy between "Stand Fast" and the manager of the "Southampton Drug Co." makes me think that the Southampton chemists have deteriorated in the matter of long hours since I was an assistant in that locality.

The "Drug Co.," in a satirical advertisement, assert that nearly every chemist in that town keeps his shop more or less open until 11 P.M. "Stand Fast," in "resenting the gross impertinence" of the "Co.," to my regret seems to glory in the alleged fact and to urge upon his brother-chemists the desirability of holding themselves out to the public as catering to their whims at all imaginable hours. I, like the Southampton chemists, am troubled by parasitic competitors who have compelled me to sell patents at a little above cost, but my policy is shown by the following notice, which I had printed upon large bills some months back :—

HOURS OF ORDINARY BUSINESS.

Kindly note that the shop closes at 8 o'clock (Saturdays at 10.30; Thursday afternoons during the summer months at 4), and also that it is not open on Sundays or Bank Holidays.

Please oblige by confining calls out of business hours to cases of necessity.

N.B.—1s. 1½d. Patent Medicines sold by us at the low price of 10d. when the shop is open are charged 11d. when the shop is shut.

I would strongly urge upon "Stand Fast" and the trade generally, that because we are willing, and morally bound, to attend to emergencies at all times, that is no reason why by unlocked doors, open shops, or glaring lights, we should invite general business from rising in the morning until retiring at night.

Who has yet heard of a patient dying because his friends were too nervous to ring the chemist's private door-bell?

Why make our ostensible hours of business longer than those in other trades? Why not levy a mild percentage upon transactions after hours?

Why, except in cases where bare subsistence is at stake, should educated men thus run a break-neck race with the tobaccoist and the publican?

I pause for a reply.

Yours truly,
EAST ANGLIA.

43/227. *Fritz*.—Quain's "Dictionary of Medicine," published by Longmans, is the most complete modern work on the treatment of disease; but it goes a good deal deeper into the subject than most chemists would care to do. It is sold at 42s.

8/25. *Max*.—**Taraxacum Cocoa**.—Equal parts of roasted dandelion-root and cocoa-paste are ground up together into a homogenous paste, with some sugar or syrup.

68/227. *Inquirer*.—**A Boiler Cement** may be made by mixing 6 parts of powdered dry clay and 1 part of iron filings, made into a paste with linseed oil; must be used as soon as made.

A. J. L.—You do not say what sort of chemical calculations you want to stud. A book reviewed this month contains a good many calculations in chemical work. We do not know any special work. Messrs. Spon publish a useful chemists' pocket-book containing many tables.

9/252. *G. G.*—"Mechanical Dentistry," by C. Hunter, published by Crosby Lockwood & Co., 7s. 6d., would, perhaps, suit you.

227/26. *Midland* wishes formula for "Connanght" hair-wash, common in the North of England. Can any reader oblige?

222/44. *J. H. K.*—**Mcgilp** is not now used by artists, unless by those of the old school. "Medium" is now used, but not for mixing with the colours, only for rubbing over the surface of the oil-painting, so as to bring out the shades. "Medium" is an oleo-resinous varnish, very similar to vaseline in appearance. "Mcgilp" was much more of a fatty nature than "medium," and through its use on our most valuable historical pictures they have been sadly damaged. Into its composition mastic or dammar varnish, linseed oil, and litharge entered, but the process for preparation varied with individual manufacturers. A mixture of pale linseed oil with mastic varnish in varying proportions has been given as the formula.

In a formula for glass cement published last month 1½ oz. of water should have been added.

Another Dr. Brown.*To the Chemist and Druggist—*

SIR,—I fully sympathise with your November correspondent, X. Y. Z. In Hereford, also, we have a "Dr. Brown," although his *modus operandi* is slightly different.

Our Dr. B., in sending his patients to a "certain place" for medicines does not hesitate, if necessary to gain his point, to cast a doubt on the ability of anyone else to dispense his prescription, saying, "Mr. — keeps everything I order, and knows just what I mean;" and, if that does not succeed, will write the directions in cypher, so determined is he that the patient shall go to a "certain place."

It is difficult to suggest a remedy, and I think the advice in your comment, to "drop an occasional discreet word," is the best plan to adopt, and I take every opportunity to do so.

Yours faithfully,

December 9, 1884.

HEREFORDIAN.

SIR,—Having noticed in your last month's issue a letter by X. Y. Z. complaining of the manner in which a certain "Dr. Brown" of his town conducts his practice, it may be some consolation to him to know that his town is not the only place in which there is cause for complaint.

We are also troubled with a "Dr. Brown," although our source of dissatisfaction is not exactly the same as X. Y. Z.'s.

Our "Dr. Brown" sends all his patients, *volens nolens*, to his chemist; and, if by any chance a customer should object to this arrangement, and asks if he cannot take the prescription to his own chemist, the "Dr." "hum's and ha's," and finally says it will do, but says it in a manner liable to cause a doubt in the mind of the patient as to whether the prescription will be dispensed correctly or not.

By way of variety "Dr. B." occasionally writes a prescription, the component parts of which are easily deciphered and as easily dispensed, but when you come to the label then comes the tug of war. "Dr. B." and the dispenser evidently having some kind of freemasonry between them, "letters or signs" being the order of the day. I may mention that these are not the usual abbreviations.

Of course we cannot legally object to this mode of procedure, but, as regards the gentlemanly conduct or fairness displayed, or the benefit to the patient, perhaps "the least said is the soonest mended."

FAIRPLAY.

Hereford, December 6, 1884.

Sale of Patent Medicines.

DEAR SIR,—I have adopted the accompanying label for some considerable time, and use it in all cases where I know, through indisputable testimony, that the medicine which I am selling contains poisonous

CHARLES B. ALLEN, Pharmacist.

IT IS IMPORTANT TO UNDERSTAND that the Government Stamp upon Patent Medicines (so-called) affords no protection to the Purchaser, the Formulae of all such Preparations being of a secret character.

It must not be assumed, therefore, that this Medicine is entirely free from harmful ingredients, and considerable caution should be exercised in its administration, more particularly when intended for young children or aged persons.

KILBURN, LONDON, N.W.

ingredients. I have enclosed it merely to illustrate, at least one way of carrying out in a *practical* manner convictions which accord with certain sentences occurring in an Editorial note in the October issue of your journal.

3 Manchester Terrace,
Kilburn, London, N.W.
October 10.

I am, Sir, very faithfully yours,

CHAS. B. ALLEN.

67/227. *J. T.*—**Cochineal Paste**.—We do not know what is meant by this term. **Scarlet Spirits** are a solution of nitrate of tin. In a weak nitric acid (32° to 34° Twaddle) quite free from sulphuric acid, but containing a small proportion of hydrochloric acid, metallic tin is dissolved. This will not keep long except in the cold. It is used as a mordant for cochineal on wool. **Red Cotton Spirits** or **Crimson Spirits** seem to be a very similar solution, except that it is generally supplied of a lower specific gravity.

224/52. *A Three Years' Subscriber* asks how he may detect lead or zinc supposed to be contained in an ointment. Digest a portion of the ointment for half an hour on the water-bath in equal parts of acetic acid and water, and filter through a wet filtering paper. The filtrate will contain either of the metals if present; if lead, there will be a black precipitate with sulphuretted hydrogen, and a yellow with chromate or iodide of potassium. Failing these indications, test for zinc by adding ammonia cautiously to a portion of the filtrate. If zinc is present there will be a white precipitate soluble in excess of ammonia, and thrown down again on addition of sulphuretted hydrogen.

1. **"Formula for an Embrocation"**—a generally useful one that covers the range of human ills" (so asks our correspondent). Perhaps a mixture of black lead and elbow grease would most nearly fulfil the conditions, but the following is more elegant pharmacy, and, with a little soft sawder added, may meet the case:—

	Ounces.
Turpentine	10
The yolk of an egg.	
Strong acetic acid	3
Water to	20

Emulsify *secundum artem*. (See Diary, 1885.)

2. Have you tried lin. crinale? It gives remarkable results sometimes, but, of course, it is often impossible to force a growth. The formula is:—Cantharidine, 1 grain; acetic ether, $\frac{1}{2}$ oz.; dissolve, and add s. v. r. 3 oz., castor oil 1 oz., oil of lavender 15 minims.

3. Dandruff. (See Diary 1884.) The following is the formula given:—

Hydrarg. oxid. flav.	gr. x.
Hydrarg. ammoniat.	gr. iv.
Ung. camphore	ss.
Ung. simplicis	3ss.
Ol. neroli	gtt. iij.
Otto rose	gtt. ij.

Fiat unguentum. To be used as a pomade.

4. The formula in our last was intended for cattle.

6. "In making tinctures such as Calumba, orange, gentian, I find it necessary to add 3 oz. to a pint after pressing. Would you advise me to make it up or not?" Follow the Pharmacopœia directions faithfully. These are to wash the mass with sufficient spirit (proof or rectified, as the case may be) to make up the deficiency. It is generally safe to allow a little more than the required quantity.

225/57. *Country Chemist.*—**Cough Powders for Horses.**—

Chloride of ammonium	3j.
Black antimony	3i.
Powdered anise	3j.
Powdered squill	3ij.
Powdered liquorice	3iij.

In each powder. One night and morning.

Vermin-killer.—

	Parts
Arsenic	1
Carbonate of haryta	3
Prussian blue q.s. to colour.	

Rub down the blue to fine powder and mix the other ingredients with it.

Cutting Prices.

SIR,—I had yesterday placed before me by a customer a local paper wherein appeared an advertisement a cubit long:—

So and so, pharmaceutical chemists, are now selling patents at reduced rates. Then runs a list, some of which actually pay the pharmaceutical chemists $2\frac{1}{2}$ per cent.!

I think if all chemists were just to calculate the actual profit they make on the patents, selling them at the proper price (less the stamp), and then how many more they must sell if at the cutting-prices to make the profit equal, and, again, what they probably might lose by selling at the non cutting prices, they would find they were the gainers by adopting the last method; to say nothing of keeping up the respectability of our trade.

The cutting "grocer" or "quack" won't do *all* the trade, and chemists will sell more than they did, say, thirty years since, when that class of business was in the hands of hook-sellers.

Printing is cheap: let all chemists bring out and well push preparations of their own in the town they reside.

Yours respectfully,

December 4.

NO BELIEVER IN CHEAP DRUGS. (226/7.)

Tincture of Indian Hemp as a Dental Anæsthetic.

To the Chemist and Druggist.—

SIR,—Just after reading in your last number Mr. Aaronson's marvellous experiences with tincture of Indian hemp, I was savagely attacked by toothache. I was not at home, so I sent to a brother chemist for some of the tincture duly diluted. I applied it, as directed, all round the gums but it gave me no relief whatever. It was diluted with glycerine and water, but the resin soon separated. Perhaps the fact that I kept it in my vest pocket had something to do with this. My toothache was easily controlled by menthol.

A friend, a professional dentist, tried the tincture at my suggestion. He performed the unpleasant operation of extracting one of his own front teeth, and thought he should thus learn exactly how it felt. He assures me that it was a very nasty job, and the tincture did not seem to improve it. As the tincture was obtained at two different places, and failed to produce any good effects in such different circumstances, it will not be safe, to recommend it to customers. Perhaps Mr. Aaronson can offer some explanation of our want of success.

London, December 9.

Yours truly,

SCRUTATOR.

42 229. *Subscriber.*—We believe Mr. Kimpton, 82 High Holborn, and Mr. H. K. Lewis, 136 Gower Street, make arrangements for the circulation of medical works.

258/6. *J. W. Watkinson.*—**Label Varnish.**—A very satisfactory varnish is made with equal parts of Canada balsam and turpentine. The labels should first receive a thin coating of mucilage, which must be dry before the varnish is applied.

Personalities.

MR. STEPHEN ORPIN, has lately opened a new chemist's shop at 65A Camden Road, Tunbridge Wells.

MR. J. E. STILLING, from Messrs. John Bell & Co., of London, has succeeded to Mr. J. Poulton's business at Newton Abbot, Devon.

MR. GEORGE BREEZE, chemist, of Catherine Street Devonport, has opened a branch business at 94 Alexandra Road, Devonport.

MESSRS. HARDY & Co., of Fenchurch Street, have taken the business lately established by Mr. Biffen in the Brecknock Road, London, N.

MR. G. WELBERRY, of Retford, has retired from the drug business after carrying it on for 40 years in Retford. He is succeeded by Mr. H. Harvey, from Collingham, Newark.

MR. HERBERT CLARKE (formerly with Messrs. Cooper & Co., South Kensington, W.) has recently taken the business of Mr. J. L. Perkins, at 10 Cannon Street, Dover. Mr. Perkins has gone to Ealing, near London.

MR. CHRISTIAN BOEHRINGER, lately of the Milan factory, is now with Messrs. Powers & Weightman at their Philadelphia factory. His brother, Mr. Alexander Boehringer, formerly managing director of the Milan factory, is in America, and, it is rumoured, will take charge of another factory here.—*Oil, Paint, and Drug Reporter.*

BEFORE his departure from America last month, Mr. Henry S. Wellcome, of the firm of Burroughs & Wellcome, London, was the special guest at a dinner given at the Lotus Club, by Mr. C. T. Root, and Mr. F. H. Tinker, of the Oil, Paint, and Drug Publishing Company. A number of other gentlemen well known in the drug trade were present, and Mr. Wellcome's business talents and social qualities were duly honoured. He was characterised by the host as "the most popular American in London."

PURE OXIDE OF ZINC (HARRIS & CO.'S)

In 1-lb., 2-lb., 4-lb., 7-lb., 14-lb., and 28-lb. Boxes, 1/- lb. Special quotations to large buyers.

N.B.—EVERY PACKAGE HAS OUR SEAL UPON IT.

Great care is used in the preparation of our Oxide of Zinc, and it is superior to the ordinary Oxides sold as B.P., which frequently contain Arsenic and Sulphate of Zinc in sufficient quantities to prove irritating to the skin.

PHILIP HARRIS & CO., Manufacturing Wholesale and Export Chemists, **BIRMINGHAM.**

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(Prepared by the Daughter of the late John Bond.)

No heating or warming required. Turns indecible black while writing.

For marking linen, cotton, silk, or garden tallies and the like.



Cannot be boiled or washed out by washing powders or acids.

Beautifully mounted on cards of 2 doz. to retail at 6d. and 1s.

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SOLD BY ALL CHEMISTS AND PERFUMERS.

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DENTISTS' PREPARATION.

In Patent Novelty Non-Spilling BOXES (Patented March 4, 1884). Two or more persons can use the same Box with the greatest propriety. PRICES: 1s. and 2s. 6d. per Box.

Inventors and Manufacturers: Messrs. ESKELL, Surgeon Dentists, 445 Strand and 58 Ludgate Hill, LONDON. OF ALL WHOLESALE HOUSES. EXPORT ORDERS RECEIVE IMMEDIATE ATTENTION.

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"THE RICHEST
NATURAL
APERIENT WATER."

Baron Liebig in "Lancet."

"Certain and pain-
less, soft and mild."

Prof. Von GARTNER,
Stuttgart.

"OF GREAT
USE IN HABITUAL
CONSTIPATION."

Medical Times and Gazette.

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As a Laxative and against Obstinate Constipation. "Has remarkable success in all diseases for which aperient waters are used."

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Against Hemorrhoids and Portal and Hepatic Congestions. "Prompt, certain, and without inconvenience."

Prof. VON BUHL, Munich.

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Dr. MARION SIMS, N.Y.

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Against Evil Consequences of Indiscretion in Diet. "Has invariably good and prompt success."

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"In the Uric Acid Diathesis and Prevention of Urinary Calculi, much more energetic than Friedrichshall, Carlsbad, or Marienbad; can be given in much smaller doses, and is less unpleasant to the taste."

New York Medical Journal, 1880, Dr. F. WEIR.

The name
of the

APOLLINARIS COMPANY, LIMITED,

on every Label secures
genuineness.

Of all Chemists, 1s. 6d. and 2s. per Bottle. Ordinary Dose, a Wineglassful.

It is most efficacious taken in the morning fasting, warmed to a temperature not below 60°, or when an equal quantity of hot water is added to it.

MELBOURNE,



1880.

ADELAIDE,



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BRIGHTON,



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Wholesale & Export DRUGGISTS, MANUFACTURING, PHARMACEUTICAL, AND ANALYTICAL CHEMISTS.

PRICES CURRENT FORWARDED ON APPLICATION.

Special Quotations for Large Quantities or Original Packages.

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Branches: 86 New Bond Street; 7 Poultry; 153 Leadenhall Street.

NEW ACCOUNTS should be accompanied with Draft or London Reference.

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QUININE, CINCHONA ALKALOIDS,

Acids, pure.

Æthers, pure & methylated.

Antimony preparations.

Benzoic Acid & Benzoates.

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Bismuth preparations.

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Flowers.

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Citric Acid & Citrates.

Corrosive Sublimate.

Iodides of the Alkalies.

Iodoform.

Magnesia.

Mercurials, Calomel, &c., &c.

Morphia Salts.

Rochelle Salt & Pulv. Seidlitz.

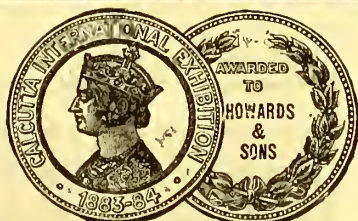
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Calcutta, 1883-1884, Gold Medal.



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1-lb. Bottles.

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1868.]

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5-lb. Tins.



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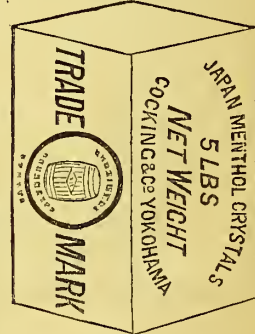
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4/6..Alcool de Menthe Ricques ..44/		4/6..Capsules Matico	33/	2/3..Guyot's Gondron	18/	7/0..Rabuteau's Elixir Ferrug. ..	65/
2/9.. Ditto ditto ..24/		4/6.. " Raquin	30/	11/..Laville's Gout Tincture ..	90/	2/9.. " Sirop ..	27/
2/9..Anbergier's Syrup	27/	4/6.. " Mathey Caylus	28/	11/.. " Pills	90/	4/0..Racahout	30, 6
1/9.. " Pâte	16/	4/6..Chassaign's Wine	38, 6	2/3..Papier Fayard	13/6	4/6..Reynal's Bougies	42/
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2/0..Belloc's Charcoal	14/	5/0..Eau Botot	38/	2/3.. Ditto	15/	8/0.. " Syrup ..72/; 2/9; 26/	
1/9.. " Lozenger	13/	3/0.. Ditto	24/	1/9..Pâte Anbergier	14, 6	1/6..Star Paper	12/
4/6..Blancard's Pills	30/	2/6..Espic's Cigarettes	14/	2/0.. " de Berthé	16/	2/9..Vallet's Pills	22/
2/6.. " Ditto	18/	5/6..Elixir de Coca	48/	2/9.. " de Coca	23/	1/9.. " Ditto	14, 6
4/6..Bron's Injection	27/	2/9..Flon's Syrup	23/	1/9.. " de George	13/	4/6..Veloutine (White, Pnk, Yel.)	89/
4/6..Bugeaud's Wine	35/	2/0..Gayetty's Paper	16/	1/1½ Ditto	8/6	3/6.. " ditto ..	50/
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2/6.. " Ditto	15/	2/8.. " Iron	16/	1/9.. " Regnaud	13/	4/6..Valentine's Meat Juice	88/
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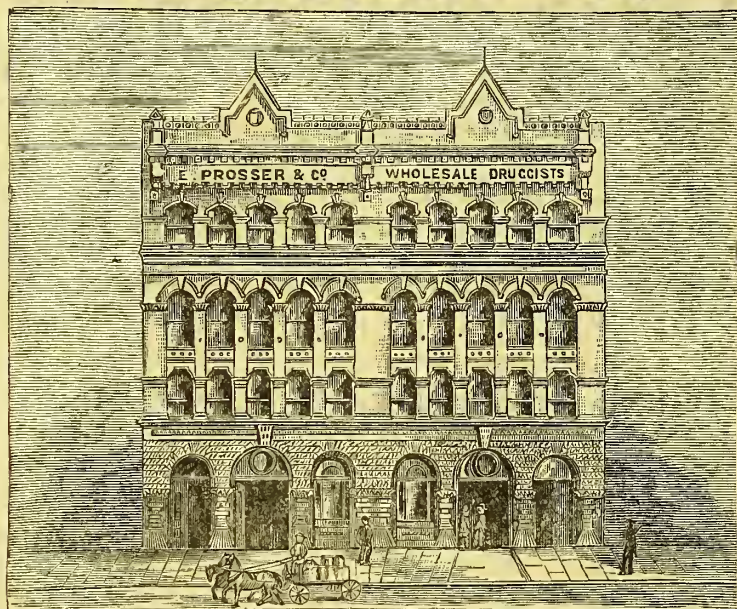
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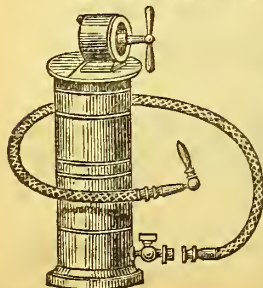
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BEWARE!

In May, 1884, the Court of Appeal, London, England, granted us a perpetual injunction (with costs) against Parrott & Co., of that city, manufacturers of the so-called "St. David's Oil." This decision for ever prohibits the use of the words "St. David's Oil" or any similar term, as well as the words "The Great German Remedy," or any title or words similar to those used by us in connection with St. Jacobs Oil. We will promptly prosecute all wrongdoers, and will pay, liberally, for information that will lead to the conviction of anyone infringing our rights. Our trade-marks are registered everywhere and duly protected by law.

THE CHARLES A. VOGELER COMPANY.

ST. JACOBS OIL



THE GREAT GERMAN REMEDY FOR PAIN.

CURES

**Rheumatism,
Neuralgia,
Backache,
Swellings,
Sore Throat,
Sprains Sores,
Scalds, Burns,
Toothache, etc.**

ST. JACOBS OIL CONQUERS PAIN

It cures all aches and pains for which an external remedy may be applied. No preparation on earth equals it. Throughout America and Australia it is pronounced by the people and the press a blessing to humanity, and the term "It Conquers Pain" has become a household saying in millions of homes. Sold by Chemists and Druggists in Great Britain at 2s. 6d. Directions in eleven languages. Beware of worthless imitations. Parties unable to obtain St. Jacobs Oil of their dealer will receive it post-paid by sending 2s. 9d. to

The Charles A. Vogeler Co.,

45 FARRINGTON ROAD, LONDON.

Main House: BALTIMORE, MARYLAND, U.S.A.

Branches: SAN FRANCISCO, CALIFORNIA; TORONTO, CANADA; SYDNEY, NEW SOUTH WALES; MELBOURNE, VICTORIA; AND LONDON, ENGLAND.

IMPORTANT.

Chemists and Druggists of Great Britain will, upon application to our London house, receive, free of all expense, novel and effective advertising matter regarding St. Jacobs Oil.



TO PHYSICIANS.

For Dyspepsia, Mental & Physical Exhaustion, Nervousness, Diminished Vitality, &c.

USE

PROF. HORSFORD'S ACID PHOSPHATE

(LIQUID).

Prepared according to the Directions of Prof. E. N. HORSFORD, of Cambridge, Mass.

A PREPARATION OF THE PHOSPHATES OF LIME, MAGNESIA, POTASH & IRON WITH PHOSPHORIC ACID, IN SUCH FORM AS TO BE READILY ASSIMILATED BY THE SYSTEM.

As Food for an Exhausted Brain. In Liver and Kidney Troubles. In Sea Sickness and Sick Headache. In Dyspepsia, Indigestion, and Constipation. In Inebriety, Despondency, and Cases of Impaired Nerve Function.

It is universally recommended and prescribed by Physicians of all schools in the United States.

It is the best tonic known, furnishing sustenance to both brain and body. Its action will harmonise with such stimulants as are necessary to take.

It makes a delicious drink with water and sugar only, and is Invigorating, Strengthening, Healthful, Refreshing.

It is not a secret or quack medicine, but is made in accordance with well-known scientific principles, under the personal supervision of the well-known Prof. Horsford, who has made the subject of the phosphates a life study.

It should not be confounded with the dilute phosphoric acid of the Pharmacopoeia, nor with any acid phosphate compounded in the laboratory. Dilute phosphoric acid is simply phosphoric acid and water without any base. In this preparation of Acid Phosphate, a portion of the phosphoric acid is combined with lime, iron, potash, &c. It is not made by compounding these articles together in the laboratory, but is obtained in the form in which it exists in the animal system.

It has been noted by some physicians that while in certain cases dilute phosphoric acid interfered with digestion, this preparation of Acid Phosphate not only caused no trouble with the digestive organs, but promoted in a marked degree their healthful action.

We have received a very large number of letters from physicians of the highest standing, in all parts of the United States, relating their experience with the Acid Phosphate, and speaking of it in high terms of commendation.

Horsford's Acid Phosphate is for sale by all druggists and chemists in the United Kingdom.

RUMFORD CHEMICAL WORKS, Providence, R.I., U.S.A.

Cable Address—"RUMFORD, PROVIDENCE."

WHOLESALE AGENTS:

FRANCIS NEWBERY & SONS, 1 King Edward Street, Newgate St., } LONDON, E.C., ENG.
BARCLAY & SONS, 95 Farringdon Street,

Physicians who have not used Horsford's Acid Phosphate, and who wish to test it, will be furnished a sample and pamphlet on application to either of the above agents; and sample will be furnished free of charge, except the expense of packing and postage (sevenpence), which amount should accompany the application.

CARL L. JENSEN'S CRYSTAL PEPSIN,

ADOPTED IN THE U.S. MARINE HOSPITAL SERVICE.

THIS PEPSIN, originated by me and now so favourably known, has been brought to such perfection that it is now fast becoming a favourite with the profession all over Europe. Its mode of preparation has been made known to the profession. It is a perfect PEPTONE PEPSIN, thereby insuring that all of the digestive principle of the stomach is obtained. The two-third saline matter peculiar to the gastric juice—probably the excreta from the peptic development—is removed by a process too novel to be appropriated by any of the imitators of my pepsin. Physicians cannot be too careful to guard against substitutions: write distinctly

CARL JENSEN'S PEPSIN.

5 SHILLINGS PER OZ.

JENSEN'S BEEF PEPTONE,

IN TRANSPARENT GLASSY SCALES.

This Peptone is not a partially digested Product, but representing the beef completely digested by the pepsin mentioned above, containing all the elements of the beef except fat. One ounce equal to eight ounces tender beef. Retail 2s. 6d. per ounce.

The above preparations are only manufactured and put up exclusively as specialities by

DR. CARL L. JENSEN,
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EXCLUSIVE AGENTS—

GABRIEL & TROKE, Wholesale Druggists, 82 City Road, LONDON.

Sold by **F. NEWBERY & SONS, 1 King Edward Street, Newgate Street, LONDON;**
 and **GEHE & CO., DRESDEN.**



COMMON NAMES.
White Hoarhound, Prassum.
Marrube Blanc.
Mittelschindorn.



PROPERTIES.

Stimulant, tonic, expectorant, and diuretic. Useful in colds, asthma, and all pulmonary affections. Infusion, 1 oz. in a pint of hot water. Dose, a wineglassful.

ALLAIRE, WOODWARD & CO.

PEORIA,
ILLINOIS, U.S.A.,

Desire to call the attention of
Chemists to their line of

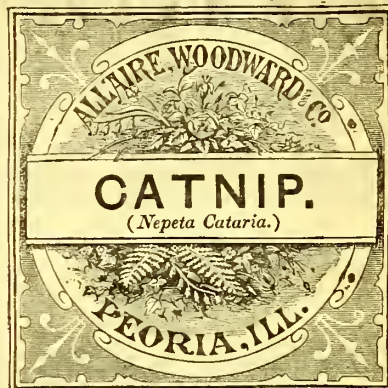
SUPERIOR

Choice Pressed Herbs,

&c., &c.

Style of Package is shown in
the accompanying Cuts.

COMMON NAMES.
Catnip, Catmint, Catwort, and Balmfield.
Kätschen-Münze.
Herbe aux Chats Catalane.



PROPERTIES.

Tonic, diaphoretic, and carminative. Useful in flatulence, colic in children, and as an emmenagogue in amenorrhoea and dysmenorrhoea. Infusion, 1 oz. in a pint of hot water. Dose, a wineglassful.

IMPORTANT NOTICE.

Very little attention is generally paid by druggists to this class of goods, so that frequently (in fact it has become the rule) pressers never or seldom put their names on the packages, and, as a result, a large proportion of these goods in the market are short weight, o.d or inferior stock, not true to name, or otherwise objectionable.

If you wish to avoid all these serious objections, and at the same time secure a much handsomer package, having on it all the common or vulgar names, also the German and French names, the medicinal properties, formulas for the infusion and dose of the same, and also, in the case of Poisons, the antidote, you can easily do it by specifying our brand (A., W. & Co.) when ordering of your jobber. In case inferior goods are substituted, we shall be pleased to receive your orders direct.

We believe it is only necessary to call the attention of the intelligent and thinking portion of the trade to these facts to secure a hearty support in our effort to supply superior goods at ordinary prices.

Our position as large consumers of this class of goods in the manufacture of Fluid and Solid Extracts and Sugar-coated Pills enables us to secure the best quality, gathered expressly for us, at the very lowest possible price, so that to secure better goods you do not have to pay more money, but simply exercise a little care in ordering.

Our name is on every package. Accept no other as ours.

POISONS are put up in YELLOW PAPER, and in this class are included all goods which, though not strictly poisons, should be dispensed with caution, such as Tansy, Savin, Pennyroyal, &c. Roots and barks coming under this class have a cautionary label of yellow paper pasted on the front end. All other ounce packages are put in fine blue paper. The adoption of these styles by us, we trust, will reduce very materially the chances for mistakes in dispensing.

CAUTION.—During the past year nearly every presser of botanic goods in this country has adopted our style of putting them up, under the supposition that it is the wrapper which sells the goods. We are convinced, however, that it is the superior quality of the goods furnished which has given us the largest trade by far now done by any one house, and we trust that buyers will not be deceived by these external imitations.

PROPERTIES.
Emmenagogue, nervine, antispasmodic.
Useful in hysteria, amenorrhoea, &c. Infusion, 1 oz. in a pint of hot water. Dose, a wineglassful.



COMMON NAMES.

Motherwort, Cardiacus.

Gräsesquandant.

Agripaume.

ALLAIRE, WOODWARD & CO.,

MANUFACTURERS OF

Fluid & Solid Extracts,

GELATINE AND SUGAR-
COATED PILLS,

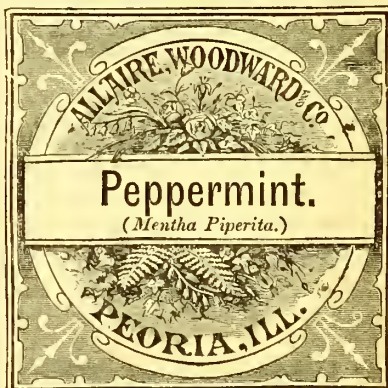
Pure Ground, Powdered, & Pressed
Botanic Goods,

PEORIA, ILLINOIS, U.S.A.

These Goods may be obtained from

BARTIN, MCGREGOR & Co., Manchester, England.
A. J. WATT & Co., Sydney, N.S.W., Australia.
W. H. H. LANE, Melbourne, Victoria, Australia.
HEMMONS, LAWS & Co., Melbourne.
A. COLE, Sydney, N.S.W.
SIMS & PARKES, Sydney, N.S.W.

PROPERTIES.
Stimulant, antispasmodic, carminative,
and stomachic. Used in colic, hysteria, and
to check nausea. Infusion, 1 oz. in a pint
of hot water. Do not boil. Dose, a wine-
glassful repeated.



COMMON NAMES.

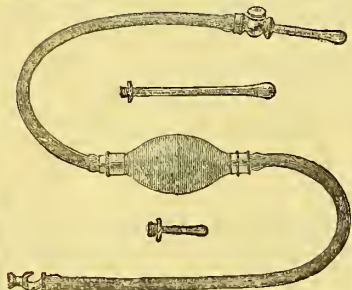
Peppermint.

Pfefferminze.

Menthe poivrée.

DAVIDSON SYRINGES

Nos. 1 and 2,
**PURE BLOCK TIN
PIPES.**



No. 4,
**HARD RUBBER
PIPES.**

UNIVERSALLY ACKNOWLEDGED TO BE THE MOST PERFECT ENEMAS MADE.
A PERFECT INSTRUMENT that can always be relied upon is the **CHEAPEST.**

With the DAVIDSON Syringes, absolute perfection in the purity of stock, and skill of construction, are the objects aimed for, so that by their great durability they are much cheaper to use than any others.

WE COMPETE ON QUALITY ONLY.

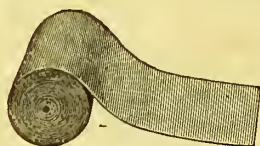
The trade never have any bad stock of DAVIDSON Syringes, which is so often the case with the cheap, worthless Syringes, such as rubber growing hard, pipes corroding, valves useless, &c., &c., and during the 25 years that we have made them, we do not recall a single complaint of their quality. The quality is specially desirable in countries where they have not the means of repairing, or where the climate effects the cheap adulterated rubber goods.

We have recently added a patent improvement to the Syringe in making the metal on the suction end of the tubing in the shape of a hook, so that the instrument can be hung up after use, and all the fluid allowed to drain out, which adds greatly to the durability of the Instrument.

These goods are exported to England, Germany, France, Holland, South America, Mexico, East Indies, &c.

GREAT IMPROVEMENT IN RUBBER BANDAGES.

DAVIDSON'S
60 FEET



DAVIDSON RUBBER CO.

BANDAGES.
LONG.

The advantages in these Bandages will at once suggest themselves to Physicians and Druggists.

They are made **60 feet long** in four widths ($1\frac{1}{2}$, 2, $2\frac{1}{2}$, and 3 inches), so that **any length or width desired** can be cut off, and it **relieves the Druggists** from the **necessity of carrying in stock** a line of Bandages of **various lengths.**

Many objections are found with Bandages that are made with tapes on the end, as the tapes, being **non-elastic**, bind the limb so rigidly as to stop or impede the circulation.

With **Davidson Bandages** these objections are entirely removed, as they are secured in place by using diaper or safety pins, so that **no part** of the limb is bound by **non-elastic material.**

We give the following from the celebrated London Medical Journal, "THE LANCET," of March 25, 1882.

"**DAVIDSON RUBBER CO. ELASTIC BANDAGE.**—The Bandage seen by us is a very good article, pure, odourless, uniform, and with excellent smoothly-cut edges. It is prepared in lengths of 60 feet, from which any length can be cut. With it are sold small 'safety' pins for fastening the last turn, as it is objected to the tape usually fastened on to Martin's Bandages that it forms an *in-elastic* constrictor of the part, and in this objection there is some force. It is probably sufficient to say that this Bandage fully maintains the high character for rubber goods already won by this firm."

CATALOGUES FURNISHED ON APPLICATION TO

DAVIDSON RUBBER CO.,

Manufacturers of Druggist, Surgical, and Fine Rubber Goods,
30 FRANKLIN STREET, BOSTON, MASS., U.S.A.

AMERICAN TRUSSES.



Under Patronage of the United States Government.

ESTABLISHED A.D. 1850.



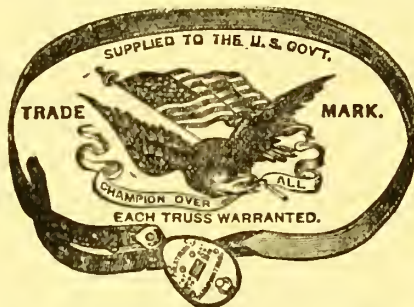
THE PHILADELPHIA TRUSS COMPANY

Is the ONLY FIRM that received Two Awards for Trusses, &c., at the Centennial Exhibition, Philadelphia, 1876.

"FIRST.—For their Patent Combination and 'CHAMPION' Truss, giving all necessary and possible movements of the Pad upon the Steel Spring for fitting each person, combined with entire firmness and stability."

"SECOND.—For general display of Trusses and Supporters of excellent material and superior workmanship."

MANUFACTURED FOR
U.S. ARMY, NAVY,
AND
PENSION DEPARTMENTS,
ALSO
**U.S. MARINE HOSPITAL
SERVICE.**



GENUINE
BEAR OUR
FIRM NAME,
Dates of Patents,
AND OUR TRADE MARK,
"CHAMPION,"
ON PLATE OF EACH TRUSS.

OUR IMPROVED PATENT "CHAMPION" TRUSS

Is handled in larger quantities than any other Truss by Wholesale Houses in the United States, and will be so in other countries when its high merits are seen.

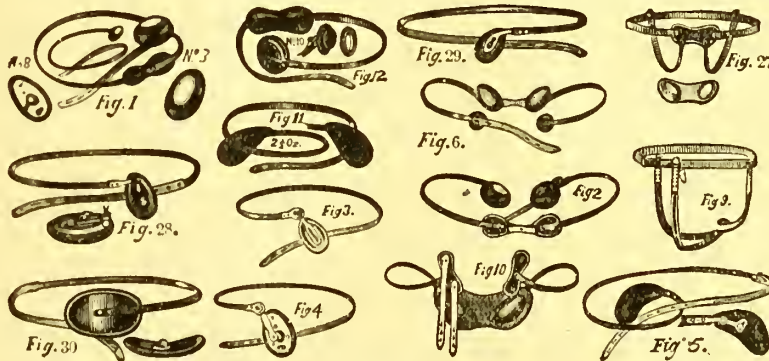
Our line of Genuine **HARD RUBBER TRUSSES, &c.**, is the most complete in the Trade, and our prices the lowest.

Our Rubber is specially cured for Trusses, and less liable to crack than other makes.

We make a superior quality of Malleable Steel Springs for these goods.

The Philadelphia Truss Company's

With the largest factory and facilities in America, if not in the world, exclusively for our full line of goods, we respectfully and confidently solicit orders and correspondence from all quarters of the Globe.



Genuine Hard Rubber Trusses, Supporters, &c.

THE PHILADELPHIA TRUSS COMPANY,

Inventors and Sole Manufacturers of the IMPROVED PATENT "CHAMPION" TRUSS (Patented Sept. 21, 1875, and Sept. 21, 1880); also Manufacturers of the

Adjustable Abdominal Supporter (best in use), Spring and Elastic Trusses, Abdominal Supporters, Elastic Stockings, Belts, Shoulder Braces, and Suspensory Bandages.

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Depots in Canada: **LYMAN, SONS & CO., Montreal, P.Q.**
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FOR PREVENTION, RELIEF, AND CURE OF
GOUT, RHEUMATISM, COLDS, NEURALGIA,
 AND ALL NERVOUS DISORDERS.

Consisting of Flannels, all Descriptions of Underclothing, Chest Preserver
 Knee Caps, Knitting Yarn, Wadding, Pine Needle Oil for Embrocation,
 Bath Extract, Soap, &c. &c.

CAUTION.—None Genuine without
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SOLD BY ALL CHEMISTS AND DRUGGISTS.

Wholesale of all DRUGGISTS' SUNDRIESMEN.

JULIO STÜRUP & CO., Puerto Cabello, VENEZUELA, **CHEMISTS, PHARMACISTS, AND WHOLESALE DRUGGISTS,**

GENERAL AGENTS FOR PATENT MEDICINES AND PERFUMES,

And Proprietors of GENIS & BARCON'S RENOWNED CHOCOLATE MANUFACTORY. The best Chocolate and
 Pure Cacao Paste, with the Celebrated "Caracas" Cacao. Prices, 2s. 6d., 2s., and 1s. 6d.

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Importers of and Agents for the Principal
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Consignments and Agencies solicited. Highest references furnished.
 Sole Agents for the U.S. for Johann Hoff's Malt Extract.
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HOP BITTERS CAUTION.

Our Preparation being duly Registered and Trade Marked under the Laws of Great Britain, and having been placed before the Public at great expense to us, we give notice that we shall fully protect our rights in every instance. Anyone making use of our Title, Labels, Bottles, or in any way attempting to trade on our reputation will be dealt with at once to the fullest extent of the law.

HOP BITTERS CO., London.

HOP BITTERS.

We guarantee the sale of Hop Bitters, and authorise you to do the same by your Customers. If at any time you are dissatisfied with them, please return what you have unsold in good condition, and we will remit you the amount paid for same.

HOP BITTERS CO.

Golden Scale PEPSIN

MANUFACTURED BY THE NEW YORK AND CHICAGO CHEMICAL CO.

This Pepsin is simply the pure unadulterated gastric ferment in the form of transparent golden scales.

Inspection will convince anyone of its purity.

Physiological Trial in the test-tube will demonstrate that its digestive power is unsurpassed.

Clinical Experience will give infallible satisfaction in all cases where use of pepsin is indicated.

Our Golden Scale Pepsin is Freely Soluble. It is instantly dissolved by water.

Absolutely Pure. It is freed from mucus and other organic impurities. It contains no adulterant such as starch, sugar-of-milk, or common salt. These adventitious substances, which are added for various purposes to most commercial pepsins, have done much to bring this most valuable remedy into disrepute. To insure success, always use the GOLDEN SCALE PEPSIN, which cannot be adulterated without changing its appearance.

High Digestive Power. We guarantee our GOLDEN SCALE PEPSIN to equal in digestive power any pepsin ever made, either domestic or foreign.

Low Price. GOLDEN SCALE PEPSIN is the cheapest pepsin now before the public, and can be prescribed in large doses at a moderate cost. Dispensed in one (1) oz. bottles at 4/. Samples furnished free to physicians.

A PURE PEPSIN AT THESE PRICES.

In 1 oz. Bottles, 2/ each, Packed 16-1 oz. Bottles in Wooden Box.

" 4	"	"	8/	"	"	12-4	"	"	"	"
" 8	"	"	16/	"	"	12-8	"	"	"	"
" 16	"	"	32/	"	"	15-16 oz. Cans	"	"	"	"

Discount 15 per cent. in lots of 15 lbs. Assorted to suit Purchaser.

BEYOND QUESTION THE BEST PEPSIN FOR PHARMACEUTICAL PREPARATIONS.

SAME PEPSIN POWDERED (PURE) AT SAME PRICE.

CAUNT & JANVIER, 55 Grand St., New York, U. S. A.

JOHN M. RICHARDS, Sole Agent for Great Britain, 46 Holborn Viaduct, LONDON.

HENRY'S GREAT INDIAN REMEDIES.



(FOR EXTERNAL APPLICATION.)

THE Cure for

Neuralgia	Stiffness from violent exercise	Paralysis
Sciatica	Swellings	Chilblains
Nervous Headache	Stiff Neck	Corns
Cramps	Sore Throat	Files
Burns and Scalds	Asthma	Cuts and Wounds
Pains generally	Bronchitis	Ringworm
Rheumatism	Coughs	Bruises
Lumbago	Mumps	Erysipelas
Gout		Convulsions

N.B.—“THILUM” does not contain mercury, opium, aconite, or any deleterious ingredient.

The following TESTIMONIALS are taken from hundreds that have been received from various parts of the world:—

Henry's “Thilum” has been used in my own family, and its use recommended by me to others. As an emollient, anodyne, and detergent application, it is one of surpassing virtue. In rheumatic affections, its efficacy, when well rubbed in, cannot be questioned, while its fragrance effectually meets one of the greatest objections to unguents in general.
Barmore, Bridge of Allan, 23rd June, 1881. W. J. VANSOMEREN, M.D., Surgeon-General (Madras retired).

Enlarged Knee of over five years' standing, Rheumatism, Neuralgia, Sore Throats, Bruises, Erysipelas, &c.—My wife had a very bad knee, enlarged with a hard bony substance at the side, from which she suffered great pain for at least five years. During that time she tried many remedies, but all failed to do any good until she was recommended to try Henry's “Thilum.” This effected a cure by using two small boxes, and the knee has been perfectly well for over two years. Since that time I have used “Thilum” for Rheumatism, Neuralgia, Sore Throat, &c., and always found it to have the desired effect. It is also valuable for Bruises, as it draws out the discoloration and soreness in a very short time. I have many friends in this town who have proved the marvellous effects of Henry's “Thilum.”

Darlington, 23rd Oct., 1884. Timekeeper, North of England Horticultural Works.
P.S.—Last week we cured Erysipelas in a lady friend's face with Henry's “Thilum.”

Prices—1s. 1½d., 2s. 3d., and 4s. 6d. per Box.



For

Rheumatism	Cuts and Wounds	Swellings generally
Wind-stroke	Broken Knees and	Sore Shoulders and
Sprains of all sorts	Bruises	Spavins [Backs]
Sprung Tendons	Cracked Heels	Heat Lumps
Sore Throat	Over reaches	Bites and Stings of
Influenza	Edema or Swelling of the Legs	Flies and Noxious
Stiffness		Insects
Mange and other Skin Diseases	and all irritable conditions of the Skin.	

TESTIMONIALS.

DEAR SIR,—I have much pleasure in stating that the “Hippacea” procured from Mr. Butterworth, of Tottenham Court Road, was perfectly successful in curing a horse of sore back and broken knees. I shall strongly recommend it whenever I have an opportunity.

Yours very truly,

204 New North Road, London, N.
10th Sept., 1884.

JOHN HUGHES, Builder.

To Mr. F. H. BOWDEN, Lansdowne Road, Croydon.

I have used “Hippacea” for some months and have found it most beneficial for cuts, bruises, and sore hoofs among my horses. Any wound it heals very quickly.

Madras, 21st May, 1884.

J. H. PEEBLES.

Prices—2s. 9d., 5s. 6d., and 11s. per Pot.

HENRY'S
“JVARA-HARI,” or FEVER DESTROYER,
For Fevers of all sorts, Colds, and as a Tonic.

Prices—1s. 1½d., 2s. 3d., and 3s. 9d. per Bottle.

HENRY'S
“COMP. ESS. of OMUM and CAMPH.”
For Cholera, Indigestion, Flatulence, Colic, Spasms in the Stomach and Bowels, as also for Dysmenhorrea (painful menstruation).

Prices—1s. 1½d. and 2s. 3d. per Bottle.

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N.B.—Wholesale Rates on application to either Madras or Croydon.

The Chemische Fabrik auf Actien, vormals E. Schering, Berlin,

MANUFACTURERS OF

SCHERINGS' PURE CHEMICALS

PARTICULARLY OF

ACID, CARBOLIC or Phenol Absolut.	Fine white hard crystals	Free from Cresylic Acid. Watery solution will not show greasy spots floating on top.
ACID, GALLIC	Almost white needles	Freely and entirely soluble in alcohol or water.
„ PYROGALLIC	Bi-sublimed, white, bulky	Ditto ditto ditto.
„ SALICYLIC (Kolbe's)	White, powder, crystallised, and dialysed	Dissolves colourless in water or alcohol; purest for medicine.
„ TANNIC	Lightest crystals	Dissolves almost colourless in water, alcohol, and ether.
„ „	Powder and granulated	Dissolves freely in water, alcohol, and ether.
CELLOIDINE (Patent)	Gelatine plates	Purest Pyroxylin; inexplosive.
CHLORAL HYDRATE	White cake and crystal	See Liebreich's, below.
CHLORAL HYDRATE (Liebreich's)	Transparent rhomboidals (facsimile of Dr. Liebreich's)	Will not decompose by age.
CHLOROFORM (ex Liebreich's Chloral)	Schering's original label	Free from foreign chlorides. Will leave no odour on evaporation.
CROTON CHLORAL	Shiny crystalline scales. (Powder form most objectionable)	Free from foreign chlorides.
GLYCERINE	S.G. 1260, double distilled, brilliantly white, odourless; also lower S.G. and qualities	Free from lime, chlorides, metals; will stand severest chemical tests.
IODINE	Resublimed, fine scales	Purest.
ODOFORM	Dry yellow scales	Purest, by medical reports.
POTASS BROMIDE	Fine white dry regular crystals	Perfectly free from iodide, and the most free from chloride.
„ CAUSTIC	Lump and stick, white	Commercially pure, and pure by alcohol.
„ CYANIDE	Ditto ditto	30%, 45%, 60%, and 95%.
„ PERMANGANATE	Large and small crystals	Chemically pure.
„ IODIDE	Fine white dry regular crystals	Apply Barytic and other tests. This will never change colour.
SILVER, NITRATE	Fine large crystals	63 to 63½% pure silver.
SODA, CAUSTIC	Lump and stick, white	Chemically pure, and pure by alcohol.
SODA SALICYLATE, and other Salicylates	White powder and crystals	Freely soluble in water and alcohol.

H. FINZELBERG, of Andernach-on-Rhine,

MANUFACTURER OF

ERGOTINE, pure Dialysed ...	Brown colloid, purified by Dialysis	Free from all saline matter present in the ordinary Ergotine and extracts.
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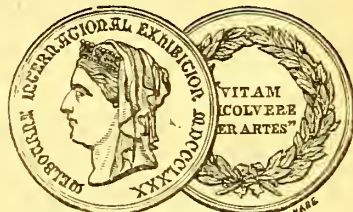
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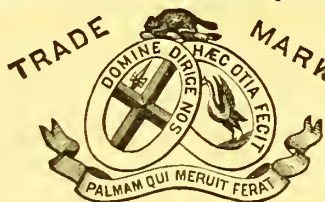
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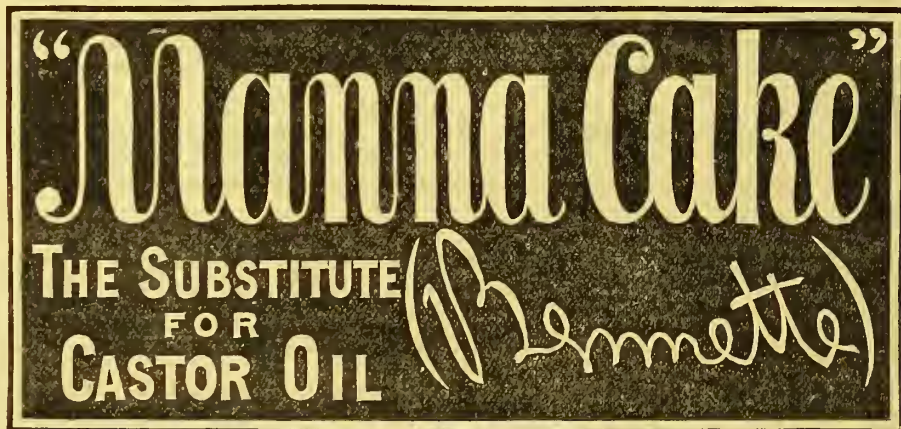
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GORDON & CO., Distributing Agents for Great Britain and Ireland.

MANNA CAKE is sent out in Handsome Decorated Tin Boxes, suitable for display on the Counter.

SHOW TABLETS SUPPLIED FREE ON APPLICATION.

PRIZE MEDAL,



PARIS, 1867.

ESTABLISHED 1741.



SILVER MEDAL,



PARIS, 1878.

THREE PRIZE MEDALS, CALCUTTA EXHIBITION, 1884.

BURGOYNE, BURBIDGES, CYRIAX & FARRIES,

16 COLEMAN ST., LONDON, E.C.,

WHOLESALE DRUGGISTS,

MANUFACTURING PHARMACEUTICAL CHEMISTS,

Pure Chemicals & Alcoholic Preparations

FOR ANALYTICAL PURPOSES AND ORIGINAL RESEARCH.

IMPORTERS & DISTILLERS OF ESSENTIAL OILS.*NEW REMEDIES stocked as soon as introduced. All Pharmaceutical Preparations supplied according to every Foreign Pharmacopoeia—United States, Spanish, Portuguese, French, &c., &c.***TINCTURES, ÆTHERS, ALCOHOLS, SPIRITS, LINIMENTS, &c.,
SHIPPED IN BOND.****SPECIALITIES:**

EXTRACT OF MALT.—Carefully prepared in vacuo from the very best malted grain, this elegant preparation retains all the delicate properties of the malt, with the *phosphates*, *albumenoids*, and *diastase* unchanged. It is of a light colour, and perfectly free from glucose or added sugar. It will keep well in any climate, and retain its valuable therapeutic properties unimpaired for any length of time.

PEPTOLEINE (Registered).—This elegant preparation is an Emulsion containing 50 per cent. of the purest Cod Liver Oil, combined with other nutritious bodies upon a new principle. The flavour is so delicate as to be entirely free from offensiveness, and it is easily assimilated by those whose digestive powers are unusually weak. It is particularly suitable for ladies and children, and is guaranteed to keep well in any climate.

OIL OF LEMON.—This article has been one of our specialities for years, and one in which we have considerable experience, and extensive dealings. We have, therefore, no hesitation in recommending our extra superior quality as the finest that can be obtained.

EASTON'S SYRUP.—This valuable syrup of the phosphato of iron, quinine, and strychnine, which of late years has become such a great

favourite with the medical profession as a nerve tonic, has always presented to the pharmacist who has tried to manufacture it from the well known formula, the difficulty of producing a presentable and staple article without curtailing any of the active principles. We have, by a process of our own, overcome these obstacles, and offer an excellent syrup, warranted to contain the exact proportions of the different ingredients; it will keep any length of time, and not deposit or become cloudy.

COCAINE MURIATE.—This alkaloid has recently been brought prominently before the medical profession on account of the very important results that have attended its employment in the production of local anaesthesia for the purpose of ophthalmic operations, &c. If a few drops of a 2 per cent. solution of the salt be applied to the eye, anaesthesia of the cornea and conjunctiva is produced within fifteen minutes. This valuable discovery has been tested with the greatest success in Germany and the United States.

ERGOTINE.—We devote the greatest care to the manufacture of this preparation, which is made in strict conformity to the original formula of Boujean, and can with confidence recommend it.

*Price Lists, Samples, and Special Quotations on application.***SOLE CONSIGNEES OF**

Messrs. Parke, Davis & Co.'s Fluid and Solid Extracts, Concentrations, and other Pharmaceutical Preparations.	Kahlbaum's Pure Alcoholic Compounds, for original research, &c.
Salicylic Acid and all Salicylic Salts (Kolbe's Patent).	Chanteaud's Dosimetric Medicines (Dr. Burggraeve's system).—Price List upon application.
Vanilline Crystals and Vanilla Sugar (De Laire's Patent), Coumarine, Heliotropine, &c.	
Antipyrin and Kairin, the new Febrifuges.	

WHOLESALE DEPOT OF

Chanteaud's Seidlitz, Retail 2/6; per doz. 24/, less 25 %.	C. F. Asche's Bronchial Pastilles, Retail 1/1½; 9d. per box.
Malto Pepsyn (Hazen Morse's), Retail 2/6; per doz. 24/6	

**GOLD MEDALS—DUBLIN, 1882; BOSTON, 1883;
LONDON, (INTERNATIONAL EXHIBITION) 1884.**

SIR JAMES MURRAY'S PURE FLUID MAGNESIA.

The ORIGINAL Article, as prepared by the Inventor, Sir James Murray, M.D.

For over 60 years in use as an excellent remedy in cases of
ACIDITY, INDIGESTION, HEARTBURN, GRAVEL, AND GOUT.
Sold by all respectable Chemists, in LARGE-SIZED Bottles (the 1s. size containing nearly
Double the quantity usually sold at that price), at 1/, 2/6, and 3/6 each.

CAUTION.—Observe that the Signature of the Inventor is on every label.

SIR JAMES MURRAY'S FLUID CAMPHOR

Is a valuable remedy in cases of SLEEPLESSNESS and WEAK NERVES. Bottles, 1/ and 2/ each.

SIR JAMES MURRAY & SON, Chemical Works, Temple Street, Dublin.
BARCLAY & SONS, 95 Farringdon Street, London.

Trade Notice.]  [Trade Notice

ATKINSON & BARKER'S ROYAL INFANTS' PRESERVATIVE.

Established by 90 years' experience as a safe and effective Medicine.

Sold universally by Chemists and Patent Medicine Dealers.
WHOLESALE AND EXPORT ORDERS SUPPLIED FROM THE MANUFACTORY—
11 RUSSELL STREET, DOWNING STREET, MANCHESTER.
SHOW CARDS AND BILLS ON APPLICATION.

RELIEF FROM COUGH IN TEN MINUTES.

HAYMAN'S BALSAM OF HOREHOUND



Is the most certain and **SPEEDY REMEDY** for all **DISORDERS** of the **CHEST** and **LUNGS**. In Asthma and Consumption, Bronchitis, Coughs, Influenza, Difficulty of Breathing, Spitting Blood, Whooping Cough, Hoarseness, Loss of Voice, &c., this Balsam gives instantaneous relief, and, if properly persevered with, scarcely ever fails to effect a rapid cure. It has now been tried for many years, has an established reputation, and many thousands have been benefited by its use.

IT HAS A MOST PLEASANT TASTE.

IMPORTANT TESTIMONIAL.—"AMPORT FIRM, ANDOVER, MAY 29, 1869.—Sir, I have for some years had your Balsam of Horehound for Mrs. B. Webster, and intended writing to tell you how much benefit she has derived. She was considered consumptive, but the Balsam has quite restored her, and she is now quite strong. I have recommended you dozens of customers, and all have been pleased with it.—I am, yours, &c., H. B. WEBSTER.

Mr. HORROX, Chemist, Mildenhall, writes to say:—"One of my customers says your Balsam is worth sixpence a drop."

IN THE NURSERY it is invaluable, as children are fond of it and take it eagerly. Immediately it is taken coughing ceases, restlessness is gone, and refreshing sleep ensues. No lady who has once tried it would ever afterwards be without it.

Prepared only by **A. HAYMAN**, Chemist, Neath; and sold by all Chemists. Price 1s. 1½d. and 2s. 9d. per Bottle.
WHOLESALE AGENTS.—W. Sutton & Co.; Barclay & Sons; Newbery & Sons; Hovenden & Sons, 35 City Road, London; Felton, Grimwade & Co., Melbourne; Elliott Brothers, Sydney and Brisbane, Australia; Kcmthorne, Prosser & Co. Auckland and Dunedin, New Zealand; Smith, Stanistreet & Co., Calcutta.

Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

ORIGINAL AND

FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—



ONLY GENUINE.

Apothecaries' Hall,	London	Frazer & Green,	Glasgow	Morson, T., & Son,	London
Allen, Hanbury & Co.,	"	Gale & Co.,	London	Newbery & Sons,	London
Baile Brothers,	"	Giles & Son,	Clifton	Oldham, G., & Co.,	Dublin
Banks & Richards,	Birmingham	Goulding, Messrs.	Cork	Parsons & Richardson,	Leicester
Barron, Harvey & Co.,	London	Gratton & Co.,	Belfast	Peake, Allen & Co.,	Dublin
Bell, John, & Co.,	"	Grimwade, Ridley,	London	Raines & Co.,	Liverpool
Bourne & Taylor,	"	Grindley & Son,	Chester	Raines & Co.,	York
Corbyn & Co.,	"	Hearon, Squire & Francis,	London	Raines, Blanshards & Co.,	Edinburgh
Cox & Gould,	"	Hodgkinson, Tonge & Stead,	"	Sang & Barker,	"
Curling & Co.,	"	Hopkins & Williams,	"	Sanger, J., & Sons,	London
Curtis & Co.,	"	Hovenden, R., & Sons,	"	Sim, James, & Co.,	Aberdeen
Davy, M'Murdo & Co.,	"	Hunt & Co.,	Exeter	Smeeton, W.,	Leeds
Dobbin, W., & Co.,	Belfast	Hunt, A., & Co.,	"	Southall & Co.,	Birmingham
Drew, Barron & Co.,	London	Johnson, J. H. & S.,	Liverpool	Sutton, W., & Co.,	London
Drew, B., & Alexander,	"	Langton, W., & Co.,	London	Tomlinson, Hayward & Co.,	Lincoln
Dunn & Company,	"	Lynch & Co.,	"	Treacher, Hodgkinson & Co.,	"
Edwards, W.,	"	Mander, Weaver,	Wolverhampton	Westrup, J. B.,	Kensington
Evans, Gadd & Webb,	Exeter	Marsden & Sons,	London	Westwood & Hopkins,	Lincoln
Evans, Lescher & Webb,	London	Maw & Son,	"	Woolley, James,	Manchester
Ferris & Co.,	Bristol	Meggs & Co.,	"	Wyleys & Brown,	Coventry
Foulger, S., & Son,	London	Mackay, John, & Co.,	Edinburgh	Yates & Co.,	London

After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy alone creates the great demand.

Sold in Bottles—1s. 1d., 2s. 9d., 4s. 6d., and 11s. Usual Discount to the Profession.

SOLE MANUFACTURER,

J. T. DAVENPORT, Pharmacist,

83 GREAT RUSSELL STREET, BLOOMSBURY SQUARE, LONDON.

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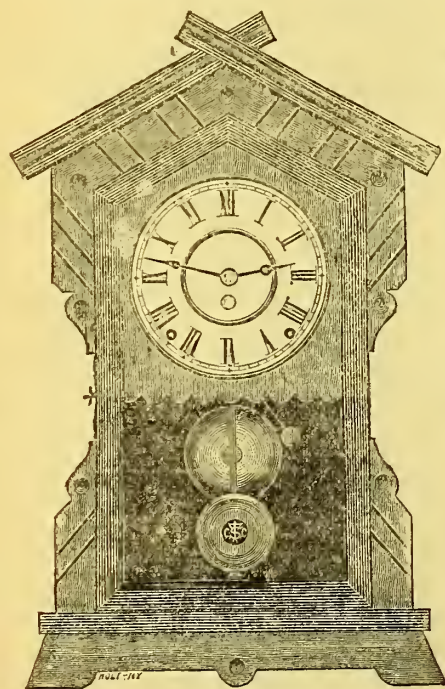
FOR SELLING

GORDON'S EXTRACT.



No. 1.—Silver Electro-plated Tea Pot, on Nickel Silver, handsomely chased, as shown in the cut.

N.B.—We do not bind you to this shape or pattern. We can get you another shape and pattern of equal value.



No. 5.—Large Quarto Album, handsomely bound in Morocco, Russia, or Plush.

No. 6.—Biscuit Box, Silver Electro-plated on Nickel Silver.

No. 2.

THE DETROIT CLOCK.

8 day strike.

Walnut Case; Height, 19½ in.;
6-inch Dial.

Manufactured by the celebrated
SETH THOMAS COMPANY,
of Thomastown, Conn., U.S.A.

No. 3.—Cruet Stand, Silver
Electro-plated on Nickel
Silver. Five bottles.

No. 4.—Butter Cooler, Cut or
Frosted Glass Dish, Silver
Electro-plated Plate and
Cover.

Any one of these presents, all of which are of the guaranteed retail value of ONE GUINEA each, will be sent free of all cost to any Chemist or Medicine Vendor who purchases ONE GROSS of "GORDON'S EXTRACT" subsequent to June 1st, 1884, and prior to March 31st, 1885.

Exceptions to this offer are:—

- A. The Wholesale Houses.
- B. Those Chemists or Medicine Vendors whose names we print, as selling our goods, in the pamphlets we ourselves distribute from house to house, in towns of over 20,000 inhabitants.

The one gross of "EXTRACT" can be bought from ourselves in one lot, or from a wholesale house in any number of lots.

If a Chemist buys six dozen "GORDON'S EXTRACT" by the 30th of March, 1885, and then six dozen on the next day, i.e., 31st March, 1885, he would become entitled to one of these presents, or, of course, before if he completes the purchase of one gross at an earlier date.

Printed matter for circulation among customers, and printed with name and address, sent free of charge and carriage paid, if prompt and careful distribution, without waste, is promised. When writing say how many books are required, and send printed label or heading to prevent errors in printing.

PRICES.

"GORDON'S EXTRACT" (to retail at 2s. per bottle),

18s. per dozen,

Subject to 15 per cent. discount on orders for not less than six dozen.

TERMS CASH.

Cheques crossed City Bank, Ludgate Hill Branch. P.O. Orders made payable to GORDON & Co., at Head Office, London, and crossed. Free delivery.

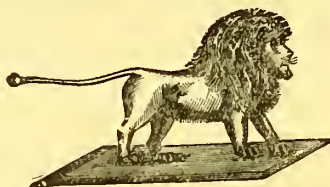
N.B.—We do not care to supply direct less than six dozen bottles of "Gordon's Extract."

GORDON & CO., 11 LONG LANE, LONDON, E.C.

AMPUTATION AVOIDED.

THE KNIFE SUPERSEDED.

TRADE MARK.

REGISTERED OVER ALL THE
GLOBE.

TRADE MARK.

REGISTERED OVER ALL THE
GLOBE.

E. BURGESS' LION OINTMENT & PILLS

Cure the worst and most obstinate cases of Ulcers, Abscesses, Cancers, Tumours, Polypi, Carbuncles, Piles, Poisoned Wounds of all kinds (including Dog and Venomous Bites), and every form of Eruption and Skin Disease; also Ulcerated and Cancerous Affections peculiar to Females, without the aid of Lancet or Knife. Numbers have been cured after leaving various London Hospitals as incurable, or curable only by amputation.

The following are specimens of Testimonials received. A list of over sixty, each bearing full name and address, is wrapped round each box.

ERSKINE HOUSE, NEAR TIDAL BASIN, VICTORIA DOCKS: Dec. 31, 1883.

DEAR SIR,—I beg to inform you I have not a spot about me, and I believe you are an instrument in the Almighty's hands to do a world of good for your fellow-creatures. Anyone to have seen me this time twelve months, and see me now, would say it was the greatest miracle ever made in skin disease. I have had spots on me for about forty years, have taken medicine of every description, baths, &c., &c., until November, 1882, and nothing ever could touch it. I was then recommended to use the Lion Ointment and Pills as a certain cure, and I found them the masterpiece of the world. I have consulted great men, and they could not touch it. People must not be afraid of using the Lion Ointment; the more it pinches them the more it is drawing the disease out—only persevere, and the Lion Ointment and Pills will do their work. Now, God bless you in your undertaking.—From yours faithfully,
MR. BURGESS.
SILVESTER STONEHOUSE STUART.

ALMA ROAD, next door to EAST HILL HOTEL, WANDSWORTH, late 2 BOLTON ROAD, GROVE PARK, CHISWICK, MIDDLESEX: February 7, 1883.

DEAR SIR,—I am happy to forward to you the following testimonial of the great value of your Lion Ointment and Pills. Through the ill-treatment of my husband I have been suffering with poisoned blood, and, in consequence, a large abscess formed in my neck, also syphilis affecting my leg. I have, too, been suffering many years from a diseased hip. I consulted several physicians, who said that I should not recover unless I had the bone taken out. Last May, 1882, I was advised to use your Lion Ointment and Pills; by so doing I can scarcely describe the benefit I received in a very short time, and I am happy to tell you that they saved my life, and I am now perfectly cured. Hoping through my case your wonderful Ointment and Pills may get well known for the benefit of my poor fellow-creatures. You are at liberty to refer anyone to me at any time should you wish.
I am, Sir, yours respectfully, ELIZABETH STILLWELL.

To MR. E. BURGESS.

PROSPECT HOUSE, AMERSHAM COMMON: June 25, 1881.

SIR,—Please send me by return one box of your Pills. The box of Lion Ointment I sent for is for Erysipelas in the face; do you think it suitable? [Most effectual.] Also send me another box of the Lion Ointment. I have enclosed stamps for the same. I have had Ointment from you before through a friend of mine. I had been suffering from a small tumour in the head for some years, and had the advice of medical men, and all said I must have it taken out; but, on applying your Ointment, in a fortnight it drew it out and made a complete cure of it.—Yours respectfully,
To MR. E. BURGESS.
MRS. E. HILL.

ELM LODGE, WIMBLEDON PARK, late 26 BALLANTINE STREET, YORK ROAD WANDSWORTH: January 17, 1881.

DEAR SIR,—Having attended St. Thomas's Hospital for nine months, suffering greatly with a tumour, extending from the back of the ear to the collar; one affecting the shoulder, and receiving not the least benefit, I was earnestly persuaded to give your Lion Ointment a trial. By so doing I can scarcely describe the benefit I received in a very short time. I am truly thankful to state I am quite well and am able to resume my duties without trouble or inconvenience. I was also attended by several doctors during the five years I have been suffering from the tumour, not having received the slightest benefit. Dear Sir, you are at liberty to publish this, or send anyone to my residence for satisfaction.—I am, Sir, yours most respectfully,
MRS. H. GRIFFIN.

To MR. BURGESS.
[The above was a most serious case. Photographs of the same, uncut and cured, and the Fungus and Dissected Bone drawn away by the Ointment, can be seen on application at 117 High Holborn, W.C.]

7 SHAFTESBURY PLACE, ALDERSGATE STREET, E.C.: May 20, 1882.

SIR,—It gives me great pleasure to add to your numerous testimonials. For four years I suffered with a very bad leg, and attended St. Bartholomew's, the University, and Dalton Hospitals, and various Dispensaries, where they told me it was a cancerous ulcer, incurable, that I must lose my leg. However, being recommended to use your Lion Ointment, I did so, and in three months the cancer was drawn away, and my leg made quite well.—I remain, yours &c.,
To MR. E. BURGESS.
LUCY IBBS.

VERULAM, PORT NATAL, SOUTH AFRICA: March 1, 1881.
DEAR SIR,—I feel it my duty to thank you for the wonderful way in which your Lion Ointment has cured my hand of skin disease, which I had endured for over nine years. When I was residing at St. John's Hill, Wandsworth, I purchased a box of your Ointment, and by the end of the fourth week, it had perfectly cured my hand, and I have seen nothing of it since. Previously to applying your Ointment, I had been to my own doctor at Wandsworth with it, and also to several Skin Disease Hospitals in London, but to no avail. They said it could not be cured, and must, therefore, be endured; but, as I said before, your Ointment has cured it. When I came out here (twelve months ago), I brought some with me, and am glad I did, for I have found it very useful. I gave some to a gentleman who had his legs covered with Natal sores, and could not walk for them, and it has perfectly cured them. I have been obliged to send home to my friends to send me out some, which I expect shortly to arrive, for, as I said before, it is very useful; in fact, cures everything in which I have tried it. If only you had an agent here, I would recommend it to everybody.—I am, dear Sir, yours, &c.,
MR. BURGESS.
SUSAN S. SMITH.

Various Cancers, Tumours, Diseased Bones, &c., extracted by the LION OINTMENT AND PILLS; also Photographs of Cases Cured are on view at 117 High Holborn. A guarantee of their virtue.

A good sale for this remedy always follows its introduction by proof of its efficacy. Foreign Houses will do well to order samples through their English agents, also supplies of Bills, PHOTOGRAPHS OF CASES CURED, &c., which ALWAYS ensure a connection.

The Ointment is put up in air-tight, grease-proof boxes, and will keep good any length of time in any climate. The Pills are in stout wooden boxes, and also retain their virtue for years. Prices, 1s. 1½d., 2s. 9d., 4s. 6d., 11s., and 22s. each.

USUAL WHOLESALE TERMS.

E. BURGESS,
117 HIGH HOLBORN, and KINGS_GATE ST., LONDON, W.C.
Late WANDSWORTH, S.W.

ESTABLISHED UPWARDS OF A CENTURY.

BUTLER, McCULLOCH & CO.,
COVENT GARDEN MARKET, LONDON.

WHOLESALE IMPORTERS AND EXPORTERS OF ALL KINDS OF
**MEDICINAL AND CULINARY HERBS, ROOTS, BARKS, SEEDS, AND
 PREPARATIONS. DISTILLERS OF PERFUMED & MEDICINAL
 WATERS. IMPORTERS OF LEECHES.**

*All Powdered and Crushed Articles are prepared in London. Absolute Purity
 is thus assured.*



THE GREATEST CARE AND JUDGMENT USED IN THE SELECTION AND PACKING OF INDENTS.

SPECIALITIES.—MEDICINAL HERBS PACKED IN PATENT CARDBOARD BOXES,
Which can be opened for examination of contents and closed up again without detriment to the package.

PRICE LISTS ON APPLICATION.

PRIZE MEDAL, INTERNATIONAL HEALTH EXHIBITION, 1884, for purity and excellence of our
 prepared Herbs and Powders.

POTTER & CLARKE,

75 Weston Street, S.E., and Viaduct House, Farringdon Street, E.C.,
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WHOLESALE AND EXPORT BOTANIC DRUGGISTS,

Importers of American and Continental Drugs, Herbs, and Essential Oils,

LEECH IMPORTERS. MANUFACTURERS OF FLUID EXTRACTS AND CONCENTRATED MEDICINES.

SPECIALITIES :

Herbs in bulk & packets, Composition Essence, Stramonium Cigarettes, Compound Asthma Cigarettes, &c.

Price Lists, Samples, and Special Quotations on application. Foreign Indents receive our special attention.

LOWE'S PILLS

For the HEAD, STOMACH, and LIVER.

LOWE'S PILLS

When the Proprietor of these Pills relinquished the Medical Profession, after being in it seven years, he found that he required something to counterbalance the want of exercise. He made up these Pills for his own use. A friend complaining of the same symptoms, he gave him some of the Pill, and a few days after received his First Testimonial, and was persuaded to advertise them. He has done so, with the happiest results.

THE FIRST TESTIMONIAL.—From Mr. ROBINSON, Librarian, Athenaeum, Wolverhampton.—I suffered for more than a week from very acute pains between my shoulders. I was recommended to get a box of Mr. Lowe's Antibilious Pills; I did so, and after taking four of the pills, I found the pain entirely removed. They are exceedingly gentle in their operation, and free from producing those griping pains which many are apt to do. No family ought to be without such an invaluable medicine.
 B. ROBINSON, Librarian, Queen Street.

LOWE'S PILLS.

Sold in Boxes at 1s. 1½d., 2s. 9d., and 11s., each, by all Chemists; or post free from the Proprietor for 15 or 26 stamps, or Postal Orders for 11s. By ROBERT HENRY LOWE, 230 Bilston Road, Wolverhampton.

**W. F. SMITH'S TASTELESS
DANDELION ANTIBILIOUS PILLS,**

Price, 1s. 1½d. and 2s. 9d. per Box.

Registered. TARAX. AND PODOPH. [*Registered.*

A NON-MERCURIAL LIVER MEDICINE, specially useful
 to the habitually constipated, and safe for all ages.

*Special caution needed against injurious imitations. Worthy of
 trade notice. Reliable, and rapidly increasing in public acceptance.*

PREPARED ONLY BY

W. F. SMITH, M.P.S.,
 280 WALWORTH ROAD, LONDON.

To be had of the usual Houses at Home and Abroad.

**MORISON'S PILLS,
POWDERS AND OINTMENT.**

The most Safe, Efficacious, and Prompt VEGETABLE MEDICINE for Family Use.

COMPOUNDED OF THE PUREST VEGETABLE INGREDIENTS ONLY.

FIFTY-FIVE YEARS OF UNINTERRUPTED SUCCESS.

Pills in Boxes at 1s. 1½d., 1s. 1½d., 2s. 9d., 4s. 6d., and 11s. Powders, 1s. 1½d. Ointment, 1s. 1½d. and 2s. 9d.

Wholesale: BRITISH COLLEGE OF HEALTH, 33 Euston Road, London;

Messrs. JOHN SANGER & SONS, 489 Oxford Street;

And of the Principal Chemists and Druggists throughout the Kingdom.

A WONDERFUL MEDICINE!



TRADE MARK.
No. 1416.

Between thirty and forty years ago a Medicine was introduced to the public and suffering humanity was invited to try the same.

The Proprietor knew from experience that success was certain, but the human breast is so imbued with prejudice, that it forms one of the strongest barriers to break down and the greatest enemy to overcome before any headway can be made towards the mansion of success. Truth has often proved itself to be "stranger than fiction," and it is a fact as solid as truth that

BEECHAM'S PILLS

have now become one of the leading Patent Medicines of the present day. From north to south, and from east to west, they are to be found in the homes of the rich and the poor. All classes of society use them, and they are by thousands declared to be

WORTH A GUINEA A BOX.

For a Weak Stomach, Impaired Digestion, and all Disorders of the Liver, they act like "MAGIC," and a few doses will be found to work wonders on the most important organs in the human machine. They strengthen the whole muscular system, restore the long-lost complexion, bring back the keen edge of appetite, and arouse into action, with the ROSE-BUD of health, the whole physical energy of the human frame. These are "FACTS" admitted by thousands, embracing all classes of Society, and one of the best guarantees to the Nervous and Debilitated is, BEECHAM'S PILLS have the LARGEST SALE of any Patent Medicine in England.

In South Africa BEECHAM'S PILLS have the largest sale of any Patent Medicine ever introduced into that part of the World.

All Patent Medicine Dealers abroad will find BEECHAM'S PILLS one of the most profitable and one of the best selling articles in the Market. The demand for them is regular, and all Foreign Houses who are desirous of getting a First-class Patent Medicine are respectfully requested to get BEECHAM'S PILLS from the leading Wholesale Houses in England (as no business will be done with any Foreign House by the Proprietor direct).

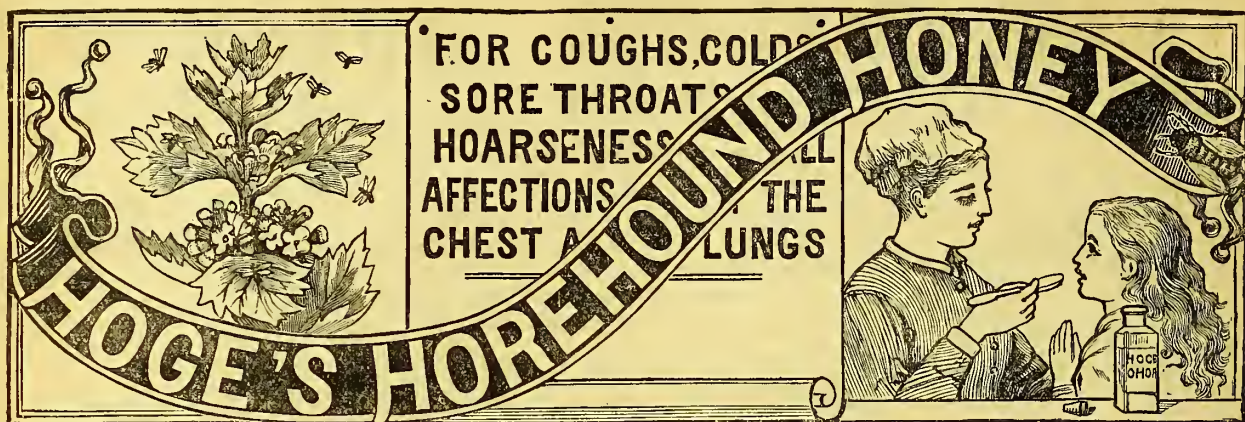
CAUTION.—The Public are requested to notice that the words "BEECHAM'S PILLS, ST. HELENS," are on the Government Stamp affixed to each Box of the Pills; if not on, they are a Forgery.

Prepared only, and Sold Wholesale and Retail, by the Proprietor,

THOMAS BEECHAM, ST. HELENS, LANCASHIRE, ENGLAND

In Boxes, 1s. 1½d. and 2s. 9d. each.

N.B.—FULL DIRECTIONS ARE GIVEN WITH EACH BOX



FOR COUGHS, COLDS,
SORE THROATS,
HOARSENESS, ALL
AFFECTIONS OF THE
CHEST AND LUNGS

HOGGE'S HOREHOUND HONEY

BEE PASTURAGE.

NEW countries, where the natural luxuriance of plants is not checked by the grazing of domestic animals, are particularly favourable to bee culture, and when Mr. Hoge first visited California, he found it was one sweet bee-garden throughout its entire length, north and south, and all the way across, from the snowy Sierra to the ocean. Wherever a bee might fly within the bounds of this virgin wilderness—through the forests, along the banks of the river, along the bluffs and headlands fronting the sea, over valley and plain, and deep leafy glen, or far up the piney slopes of the mountains, throughout every belt and section of climate—bee-flowers bloomed in lavish abundance. During the months of March, April, and May, what is known as the bee-belt of Southern California is one smooth continuous bed of honey-bloom so marvellously rich that, in walking from one end of it to the other, a distance of more than four hundred miles, your feet would press more than a hundred flowers at every step.

Extending far out in the vast prairie, its unbroken bosom is often found to be one perpetual carpet of horehound flowers, lasting from spring until autumn. All the seasons are warm and temperate, so that honey never ceases to flow from this plant, which yields a profusion of blossoms almost unequalled in the vegetable kingdom. We can judge of their luxuriance, when there grows upon a slender, unobtrusive little bush upwards of 3,000 blossoms, five-eighths of an inch in diameter. Each of these are reservoirs that yield the most wonderful remedy in the world for the cure of coughs, sore throats, sore lungs, &c.—horehound honey. These miniature laboratories stamp with faultless certainty this honey with a colour and flavour peculiar to itself.

The work of the honey-bee is to gather the sweet treasure so divinely prepared, and bear it off, saying to suffering humanity, "Eat! It is the soul of the Blossom."

HOME TESTIMONY.

No Medicine ever came before the public with such unquestionable recommendations and distinguished patronage as "Hoge's Horehound Honey." It has proved a veritable revelation to all who have tried it.

THE LORD MAYOR OF LONDON ORDERS IT.

Mansion House, London, E.C.,

September 23, 1883.

The LORD MAYOR would thank Messrs. W. M. Hoge & Co. to send him half-a-dozen of their "Hoge's Horehound Honey," which has been well recommended to him.

THE PRIMA DONNA.

Hawthorn Lodge, Finchley New Road, N.W.,

March 30, 1883.

Messrs. W. M. Hoge & Co., London.

Gentlemen,—I have much pleasure in stating that I consider your "Horehound Honey" the most wonderful remedy I have ever tried, possessing properties which are nothing short of marvellous, for the cure of affections of the throat and chest. I shall never be without a bottle of "Horehound Honey."

Yours very truly,

MARIE ROSE-MATLSON.

Your Honey is delicious.

ELLEN TERRY.

W. L. BRIGHT, Esq., son of the RIGHT. HON. JOHN BRIGHT, M.P., said Hoge's "Horehound Honey" cured his father of a bad cough.

REV. C. D. KINGDON says "it makes the voice clear and pleasant, and takes away all that huskiness in the throat which is so uncomfortable to preacher and congregation."

67 Warwick Road, Maida Vale, W.,
October 5, 1883.

Messrs. W. M. Hoge & Co.

Dear Sirs,—I have great pleasure in bearing testimony to the excellence of your "Horehound Honey" for the throat and the voice. I have used, and use it now at intervals, as I found it, for my voice, of great value, and, therefore, I can recommend it from my own experience, especially to singers.

Yours truly,

LOUISE LIEBHART.

38 Oxford Road, Islington, London, N.

Messrs. W. M. Hoge & Co.

Gentlemen,—I was troubled for a long time with a bad cough, which I feared was becoming chronic. I used your "Horehound Honey," and gave it a fair trial. I am happy to be able to tell you that it quite relieved me, and I recommend it as a certain cure.

Yours truly,

GEO. M. SMYTHE.

7 Suffolk Lane, Cannon Street, E.C., London,
April 20, 1883.

Messrs. W. M. Hoge & Co., London.

Gentlemen,—Having suffered for many years with irritation of the throat and chest, I never found any remedy to relieve the irritation until I purchased a bottle of your "Horehound Honey," which I did a few days since. I want to inform you it had a wonderful soothing effect, affording relief at once. Please send me one dozen bottles, and oblige

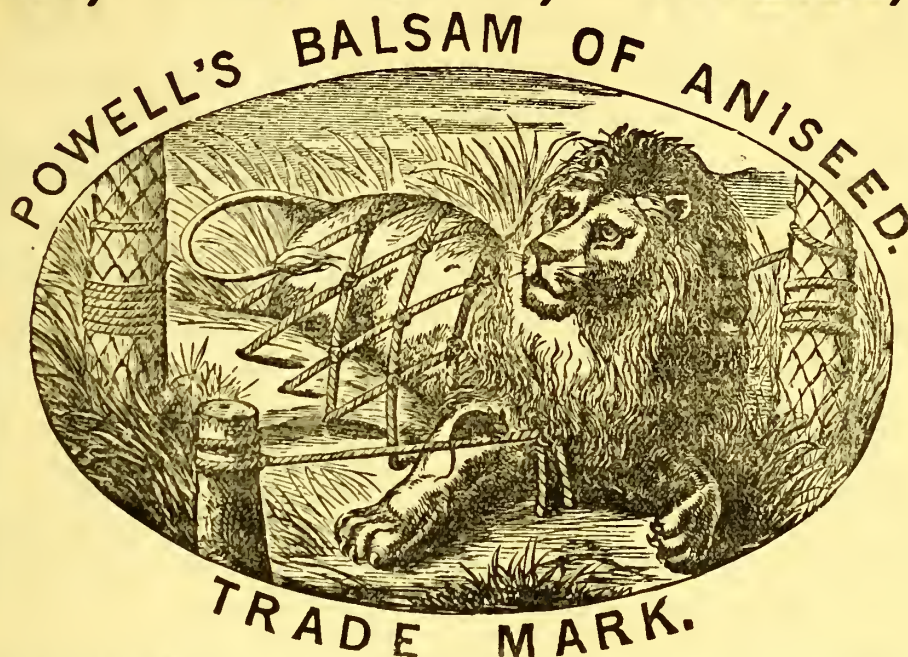
Yours truly,

G. F. BLACK.

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COUGHS, BRONCHITIS, ASTHMA, &c.Counter Bills with Name and Address at
foot, and Show Cards sent Free,on application through any of the
Wholesale Patent Medicine Houses.

The high character of this old Medicine as a sure remedy for **PULMONARY and BRONCHIAL DISORDERS**, is repeatedly confirmed by the gratifying letters Mr. POWELL receives from those who have experienced its great worth.

Prepared by **THOMAS POWELL**, 4 Albion Place, Blackfriars Road, London, S.E.

Sold by Chemists and Vendors of Medicine throughout the World, at 1s. 1½d., 2s. 3d. and 11s. per bottle.

CLARK'S BALSAMIC COUGH PILLS,

For the Cure of Coughs, Colds, Shortness of Breath, Asthma, Bronchitis, and all Pulmonary Complaints.

These Pills have the wonderful power of immediately relieving any kind of Cough, by promoting free expectoration, removing the accumulation of Phlegm, which causes a sense of Choking and Difficulty of Breathing, and at night deprives the patient of rest.

In Asthma and Coughs of long standing, these Pills are invaluable. If they do not effect a cure, they afford such relief to the sufferers as to induce them henceforth never to be without them. Common Coughs and Colds are effectually cured by taking a few doses of the Balsamic Cough Pills.

From the numerous Testimonials received, the Proprietor has selected the following:—

Elizabeth Lodge, Gurney Road, Leytonstone Road, January, 1876.
DEAR SIR.—I feel great pleasure in acknowledging the wonderful properties of your **BALSMIC COUGH PILLS**. My wife has been troubled with a nasty hard dry Cough since a child. She has upon many occasions tried various Cough Mixtures, Syrups, &c., sometimes with a slight relief, but with no satisfactory result. In the month of November last the Cough really became alarming. She was advised by a friend of her to try your **BALSMIC COUGH PILLS**. I assure you they entirely cured her. I, of course, always keep a box in the house, in case of coughs or colds, but am happy to say they are now never wanted. I think no one has a greater aversion to advertised medicine than myself; but after the extraordinary quick relief she received after taking only nine of your Pills, it would be uncharitable on my part not to acknowledge the good they have done.

J. A. CLARK, Esq.

Believe me, Dear Sir, faithfully yours,
T. W. ELVIDGE.

To Mr. J. A. CLARK.

Broughton, Sulney, near Melton Mowbray, Notts, November 29, 1875.

DEAR SIR.—Having had a very bad Cough for many years, and, through the advice of friends, tried various remedies to no purpose, I was at last induced to try your **BALSMIC COUGH PILLS**. I accordingly did so, and through the blessing of God, found very great relief. Time was when I could not lie down without a fit of coughing distressing me. I am truly thankful to say I can now lie down with comfort, owing to your **COUGH PILLS**. I have now a cold, with a very slight Cough; I therefore desire you to send me a box of your Balsamic Cough Pills, and oblige,

Yours truly, Rev. J. EVERETT, Baptist Minister.

Prepared and Sold in Boxes, price 7½d. and 1/1½, by

J. A. CLARK, Chemist. 48 The Broadway. London Fields, E.

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"FOR THE BLOOD IS THE LIFE."

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WORLD FAMED

BLOOD MIXTURE,

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The Celebrated CURE FOR Scrofula, Scurvy, Blood and Skin Diseases, and Sores of all kinds.

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CAUTION.—The Proprietors will take immediate proceedings against all persons pirating their Trade Mark, "Blood Mixture," Labels, Wrappers, &c., or Advertisements, or in any way infringing their rights.



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The CERTAIN CURE for NEURALGIA, SCIATICA, NERVOUS HEADACHE, &c.
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A1 BRAND.

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1	6d.		Glass Bottles with Screw Caps	3/8	LOOSE CONES SUPPLIED (ALL SIZES).
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3	9d.	2	Glass Bottles with Screw Caps	5/4	
4	1/-	6	Glass Bottles with Screw Caps	6/9	SUPPLIED (ALL SIZES).
5	1/-	6	Glass Bottles with Screw Caps	6/9	
6	1/-	7	Glass Bottles with Screw Caps	6/9	
7	1/-	8	Boxwood, ordinary shape on Pedestal	5/-	Prices on application.
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SPECIALITE BOXES.

The lid removes, and the box serves as a holder for the Cones.

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Loose Cones, 8, 12, or 16 to the oz.
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Price 24/- per dozen, subject to usual Patent Medicine discount. Per gross, £11 8s., net cash, carriage paid, box free. Export Tin-lined Cases charged 7/6 each, delivered f.o.b. Remittance in full must accompany order. For less than One Gross buyers will please write their Patent Medicine House or Wholesale Druggist.

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For Consumptive and Asthmatic Coughs, Colds, Bronchitis, Bronchial Affections, Palpitation of the Heart, Hoarseness, Tightness, Wheezing, Difficulty of Breathing, &c.

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To be obtained from most Chemists in Town and Country. If any difficulty, the Proprietor, W. LOWE, Chemist, 21 ROSSAMOND STREET WEST, and 150 MOSS LANE EAST, MANCHESTER, will send, post free for 14 stamps, to any address in the United Kingdom.

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And sold at 1s. 1½d., 2s. 9d., 4s. 6d., 11s., 22s., and 38s. each Box or Pot.

Chemists and Druggists selling "Holloway's Pills and Ointment" can, on application to the above address, or to the Wholesale House with whom they deal, be supplied free of charge with Handbills and Posters with their name and address printed at foot.

Wholesale Terms see List of "Proprietary Articles" in most Price Currents.

INDEX TO ADVERTISEMENTS,
See pages 39, 40.

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This natural oil must speedily supersede the fatty oils and ointments of Camphor now in use, as it is both more cleanly and efficacious.

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A larger quantity of Cod Liver Oil, Castor Oil, or other nauseous medicines can be taken in one Soluble than by the old rigid form of Capsule.

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The introduction of this Preparation to the notice of the Profession for every variety of bleeding arose from the desire expressed by several eminent Physicians and many patients to obtain an efficient Styptic at a moderate price—Ruspini's celebrated Styptic being so costly.

P. C. SMYLY, M.D., *sc.* Surgeon to the Meath Hospital, writes:—"I find it of the greatest use, in fact, in every instance was equal, if not superior, to Ruspini's Styptic."T. P. MASON, M.D., *sc.*, Physician to Mercer's Hospital, writes:—"The Styptic you had the goodness to forward to me, I found highly advantageous in the Hemorrhage of Phthisis."*Circulars of these Preparations may be had on application.***JOHN EVANS, CHEMIST TO THE QUEEN and**
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Copaiba Capsules, No. 0	7/	1/6
" " No. 1	6/6	1/8
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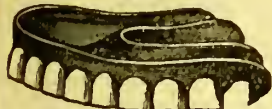
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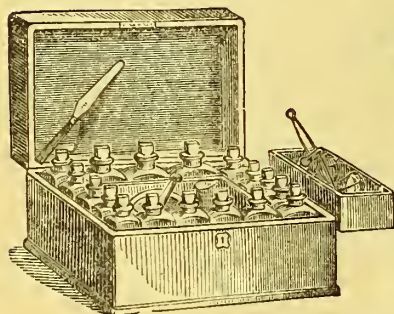
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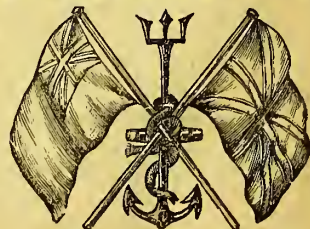
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INDEX TO ADVERTISEMENTS.

See pages 39, 40.

PRIZE MEDALS, INTERNATIONAL EXHIBITIONS.



LONDON, 1862.



PARIS, 1875.



PHILADELPHIA, 1876.



PARIS, 1878.



SYDNEY, 1879.



MELBOURNE, 1880

KILNER BROTHERS,

MANUFACTURERS OF

GLASS BOTTLES,

VAN BOXES, CASES, &c.,

Respectfully invite attention to the following Goods that they supply:

DISPENSING BOTTLES—All kinds in GREEN and WHITE FLINT GLASS.

In consequence of the growing demand for our *Dispensing* Bottles we have found it necessary to increase our powers of production, and are now in a position to execute orders for same promptly.

FEEDING BOTTLES—"OUR BABIES' BOTTLE," in Green and White Glass.
"OUR DARLINGS' BOTTLE," in White Glass.

Fitted in a variety of styles.

PERFUMERY BOTTLES—Many kinds in WHITE FLINT GLASS.

CHEMISTS' BOTTLES—Numerous varieties in PALE GREEN, BLUE, and WHITE FLINT GLASS.

SUNDRIES—In Glass and Earthenware; Corks; Parcels-Post Boxes, &c.

Also Wholesale Druggists', Oil, Tap, Pickle, Sauce, Vinegar, Wine, Spirit, Beer, Mineral Water, Ink, Gum, and other Bottles, Syphons, Van Boxes, Cases, &c.

NOTICE.—WE PUBLISH

**FOR HOME
TRADE,**

MONTHLY, a 12-page Circular, containing full particulars of our Goods, in which attention is invited to new kinds as they are added, and prominence given to goods in season.

QUARTERLY, Price Current of Dispensing, Feeding, Perfumery, and Chemists' Bottles and Sundries.

AT INTERVALS, Price Lists of other goods as mentioned above, in separate sections for different trades.

AT INTERVALS, Illustrated Catalogues of all our goods.

**FOR EXPORT
TRADE.**

QUARTERLY ILLUSTRATED PRICE CURRENT (54 pages), full of information for Foreign Buyers.

**FOR HOME
TRADE.**

**FOR EXPORT
TRADE.**

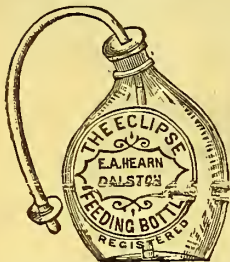
ORDERS FROM THE HOME OR FOREIGN TRADE WILL HAVE CAREFUL ATTENTION.

KILNER BROTHERS,

No. 3 GT. NORTHERN GOODS STATION, KING'S CROSS, LONDON

Feeding Bottles.**THE "ECLIPSE."**

Fitted with Boxwood or China topped Corks.



White Fittings, 30s. per gross; best Black Fittings, 36s. per gross.

Fitted with best Screw Glass Stoppers, 6s. per gross extra.
The above are put up in one dozen wood-partitioned boxes.

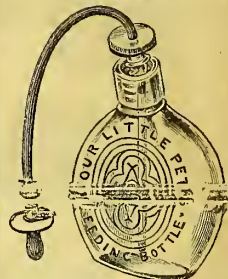
Spare Bottles or Fittings at lowest prices. Liberal discount to large buyers.

**HEARN, RIDDELL & CO.,
GLASS BOTTLE****MANUFACTURERS,****381, KINGSLAND ROAD, LONDON, E.**

GLASS BOTTLES of EVERY DESCRIPTION, either PLAIN or STOPPERED, made in WHITE, BLUE, AMBER, ACTINIC GREEN, or any other colour required.

**SCREW NICKEL CAPPED POMADES, HONEY POTS,
JELLY JARS, &c., &c.****SPECIAL ATTENTION GIVEN TO QUALITY.***Quotations Post Free to any part of the world on Application.***The above will be found the BEST and CHEAPEST
House in the Trade.****"OUR LITTLE PETS"
Feeding Bottle.**

Fitted with best Porcelain Caps or Screw Glass Stoppers.



White Fittings, 78s. per gross; Black Fittings, 84s. per gross.

Each Bottle, with two Brushes, in handsome cardboard box, bearing our Copyright Label.

Spare Bottles or Fittings at lowest prices. Liberal discount to large buyers.

**GREATLY REDUCED PRICES
OF MEDICAL BOTTLES.****SUPERIOR QUALITY—FLATS OR OVALS.**3-oz. & 4-oz., 6/6 per grs. | 10-oz. & 12-oz., 10/9 pr. grs.
6-oz. „ 8-oz., 7/6 „ | 16-oz. „ „ 14/6 „**IMPROVED WHITE FLINT VIALS.**

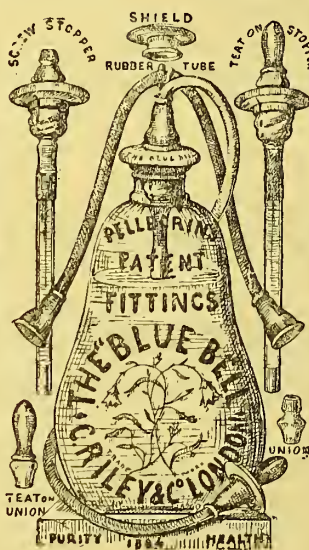
Long, Medium, Squats, Round Shouldered, and Graduated.

2-oz. „ 5/6 per gross. | 1-oz. „ „ 3/9 pr. grs.
1½-oz. „ 4/6 „ | ½-oz., 2 dr. & 1 dr. 3/0 „**THOS. W. SIMCOCK,**
DRUGGISTS' SUNDRYMAN AND BOTTLE MANUFACTURER,
17 Guildford St., LEEDS.**DISPENSING BOTTLES & PHIALS
MADE OF PURE METAL.****I. ISAACS & CO., Glass Bottle Manufacturers,**Beg to state that they have greatly improved the quality of their Bottles, and supply them at the following greatly reduced prices—
Green FLINT, Flat or Oval, Plain or Graduated.

3 and 4 ounce .. 8/ per gross.	12 ounce .. 13/ per gross.
6 and 8 ounce .. 8/6 „	16 ounce .. 16/ „
White Moulded Phials of Superior Quality.	
½ ounce and under 4/ per gross.	1½ ounce .. 5/ per gross.
1 ounce .. 4/6 „	2 ounce .. 6/ „
3 ounce .. 7/6 per gross.	

Plain, or Graduated to Teaspoons.

All the above are first-rate quality. In ordering, please say "PURE METAL BOTTLES." A Sample Bottle of any kind forwarded free on application. Country packages, 1/ each. Bankers, London and Westminster. Established upwards of 50 years.

I. ISAACS & CO., Glass Bottle Manufacturers,
25 Francis Street Tottenham Court Road, London.**THE "BLUE BELL"
NEW HYGIENIC
FEEDING BOTTLE**COMBINES
CERTAIN CLEANLINESS.Shield and Teat secure
in use.FITTINGS OF AN ENTIRELY
NOVEL DESIGN.THE PERFECTION OF
FEEDERS.**18/- per doz.****C. RILEY & CO.,**

LANGLEY LANE,

SOUTH LAMBETH,

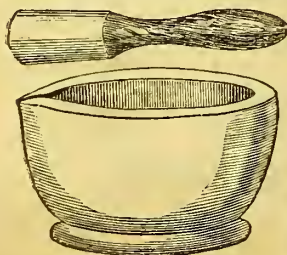
LONDON, S.W.

**SAVAR'S
CUBEB
CIGARETTES.**

Cubebs, Stramonium, and Cannabis Ind. (soothing). Relief in Asthma, Throat Cough, Bronchitis, Influenza. A Specific against Fogs.

Boxes (12) 1s. 9s. per doz.;
(36) 2s. 6d., 24s. per doz.

Full Directions.

EVANS, SON & CO.,
LIVERPOOL.
EVANS, LESCHER & WEBB,
LONDON.**WEDGWOOD
ACID-PROOF****MORTARS AND PESTLES.**

ALSO MANUFACTURERS OF


Funnels, Evaporating Pans, Electric Battery Fittings, Bed Pans, Urinals, Medicine Spoons, Physic Cups, Sick Feeders, Bleeding Basins, Medicine Measures, Eye Cups, Inhalers, Nursery Lamps, Wall Tiles, &c.

*Price List on application. Special quotations for large orders. Every article stamped "Wedgwood."***JOSIAH WEDGWOOD & SONS, ETRURIA, STOKE-ON-TRENT.**


LONDON ROOMS: ST. ANDREW'S BUILDINGS, HOLBORN CIRCUS.

BREFFIT'S

(LIMITED)

AIRE & CALDER BOTTLE CO.**GLASS BOTTLES.****GLASSWARE SUNDRIES.****GLASS MEASURES.**To E. BREFFIT & Co.,
London.CUSTOM HOUSE,
MALTA, 31st Oct., 1884.


GENTLEMEN,—I have to acknowledge the receipt of the Glass Measures you have manufactured for the use of this Custom House with that precision and finish I had reason to expect from your firm. The goods have arrived in excellent condition. Yours, &c.




HON. J. V. INGLOTT.


DISPENSING BOTTLES.**SHOP ROUNDS, JARS, &c.****SCREW-CAPPED BOTTLES.****PROPRIETORS OF PATENT MEDICINES, &c.,**

—REQUIRING NEW AND ATTRACTIVE PATTERNS—

Are supplied with Wood Models with Trade Mark, Lettering, &c., free of charge.

TRADE MARKS, DESIGNS, ETC., REGISTERED.


PRICES, SAMPLES, &c., UPON APPLICATION.



OFFICES AND SHOW-ROOMS—

83 UPPER THAMES STREET, LONDON,

Close to Cannon Street and Mansion House Railway Stations.

MAW'S ELASTIC ENEMA APPARATUS,

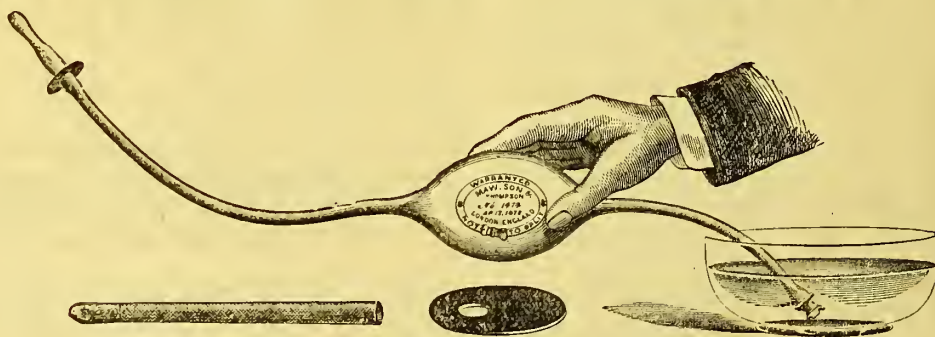
WHITE, GREEN, RED OR BLACK.

IN SLIDE CEDAR BOXES.

See Book of Illustrations, page 329.

Higginson's, Fig. 13	...	...	...	...	...	34s. per doz.
Higginson's, Fig. 13 C, Pipes to disconnect...	...	...	...	...	...	34s. „
Higginson's, Fig. 13 D, Pipes to disconnect, with Elastic- Gum Rectum Tube for Children	...	...	...	...	...	42s. „

The following are made in one continuous piece.



WARRANTED NOT TO SPLIT.

- 1st.—A complete Enema Apparatus, without any metallic connections or wire fastenings whatever, thereby avoiding the possibility of leakage.
- 2nd.—Specially prepared to resist the heat in tropical countries.
- 3rd.—Will not split, become hard, or sticky.

Patented in America, No. 212,939, March 4th, 1879; and in France, No. 126,909, October 11th, 1878.

No. 1A Quality.—Black, Blue, Green, Red, and White Enamelled, in Oval Cloth- covered Boxes	...	...	...	...	...	per doz.	£2 18 0
No. 1B Quality.—Red and White Enamelled, in Slide Cedar Boxes	...	...	...	...	...	„	2 0 0
No. 2 Quality.—White Rubber, in Slide Cedar Boxes	...	...	...	...	...	„	1 14 0

SPECIAL QUOTATIONS TO WHOLESALE BUYERS.

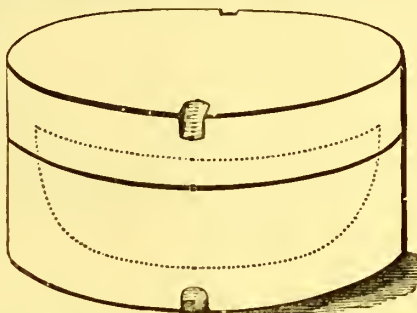
S. MAW, SON & THOMPSON, LONDON, E.C.

TOOGOOD'S NEW REGISTERED EARTHENWARE COVERED POTS.

ARE CLAIMED TO BE THE MOST PERFECT AND CONVENIENT YET OFFERED TO THE TRADE, AND POSSESS THE FOLLOWING ADVANTAGES:—

1st.—An India-rubber Band passed vertically over the pot is kept in its place by the notches, and effectually secures the lid; for travelling this supplies a want greatly needed.

2nd.—The Covers being made quite flat, labels can be affixed with ease, and without creasing.



3rd.—The inside of the Pots being rounded or egg-shape, the contents can be entirely removed without waste.

4th.—Great attention has been paid to insure accuracy of contents.

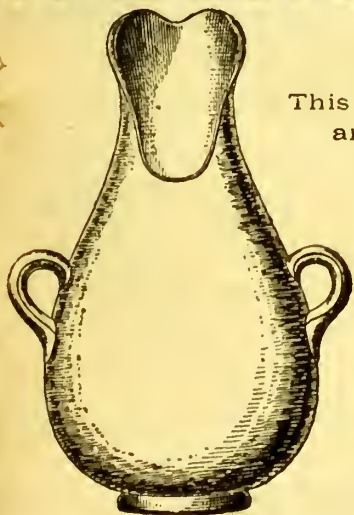
PRICES. { $\frac{1}{18}$ /- $\frac{1}{18}$ /- $\frac{1}{18}$ /- $\frac{2}{20}$ /- $\frac{1}{22}$ /- $\frac{1}{24}$ /- $\frac{2}{27}$ /- $\frac{3}{34}$ /- $\frac{4}{42}$ /- $\frac{6}{54}$ /- $\frac{8 \text{ oz.}}{66}$ /- per Gross.

DR. SPENCER THOMSON'S ORO-NASAL STEAM INHALER.

(PATENTED.)

For use in the Relief of Asthma, Hay Fever, &c.

This Inhaler offers advantages which are not to be found in any other, viz., that the Vapour, simple or medicated, can be inhaled from water at any temperature and the effect exerted upon ALL the air passages of the nostrils, mouth, and throat.



PRICES.

In Terra Cotta 48s. dozen.

In White Earthenware ... 33s. ,,

“For the relief of Asthma, Hay Fever, &c., this Inhaler offers particular advantages.”—
British Medical Journal, October 25, 1884.

TO BE OBTAINED OF

WILLIAM TOOGOOD,

WHOLESALE GLASS BOTTLE MANUFACTURER & DRUGGISTS' SUNDRYMAN,
35, 36, & 37 MOUNT STREET, GROSVENOR SQUARE, LONDON, W.

OR THROUGH ANY SHIPPING HOUSE.

WILLIAM TOOGOOD'S REVISED PRICE CURRENT for 1884, of Glass Bottles, Measures, Earthenware, Druggists' Sundries, &c., will be forwarded post free upon application.

SPECIAL ATTENTION GIVEN TO SHIPPING ORDERS.

TRUSSES.

LINDSEY & SONS.

THE BEST HOUSE FOR LONDON-MADE TRUSSES
OF SUPERIOR QUALITY AND FINISH AT LOWEST
TRADE PRICES.

WHOLESALE AND FOR EXPORT.

ILLUSTRATED LIST POST FREE TO ANY ADDRESS.

ELASTIC GOODS, SUSPENDERS, BELTS, AND SURGICAL BANDAGES.

32 LUDGATE HILL—40 GRACECHURCH STREET, LONDON.

BELLADONNA
POROUS PLASTERS.

24s. per gross.

SUBJECT.

Samples on Application.

EDWARD TAYLOR,

MANUFACTURER OF ALL KINDS OF

MEDICAL, SURGICAL & MARGINAL PLASTERS

For Home Trade and Export to all climates.

ISLINGTON SQUARE, SALFORD, MANCHESTER.

[ESTABLISHED 1847.]

Samples and Quotations on Application.

ESTABLISHED 1814.

W. A. SCOTT, 2 Howard Street, SHEFFIELD
TRUSS MANUFACTURER.

TRUSSES FROM 12/- PER DOZ. SAMPLES SENT ON APPLICATION.

N.B.—All our Trusses are hammered to shape of the body and made of best Sheffield Steel.

AUSTIN'S PATENT POCKET INHALERS

And Carbolate of Iodine for use therewith are in constantly increasing demand.

DR. HORACE DOBELL, in his recent work "On Loss of Weight, Blood Spitting, and Lung Disease," says (at page 124, 2nd edition),
in reference to Antiseptic Inhalations.

"One of the best means of using these is Austin's Pocket Inhaler."

Prices 3/6, 5/6, 10/6, and 21/- each.

Extra Bottles of Carbolate of Iodine, 1/- and 2/- each. Extra Tubulettes, 1/- each, or 5/- per half dozen.

Sold Wholesale by S. MAW, SON & THOMPSON. See Price List. And may also be had of all the leading Patent Medicine
Warehousemen.

Estab.]
1832.]

TRUSSES.

[Estab.
1832.]

The BEST and CHEAPEST LONDON-MADE TRUSSES in the Market are
Manufactured by

H. M. COLWELL.

ELASTIC STOCKINGS, SUSPENDERS, & SURGICAL BANDAGES OF ALL KINDS.
WHOLESALE AND EXPORT.

The largest Shipper in the Trade.

Illustrated Price List on Application.

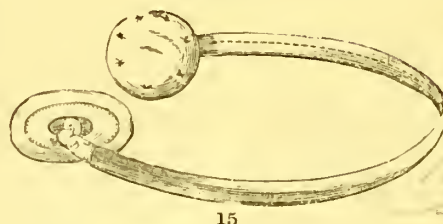
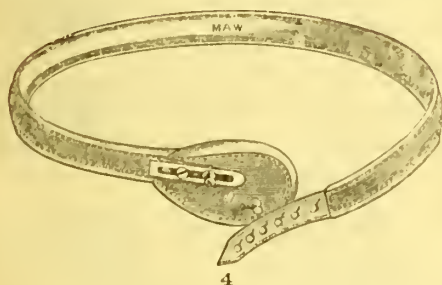
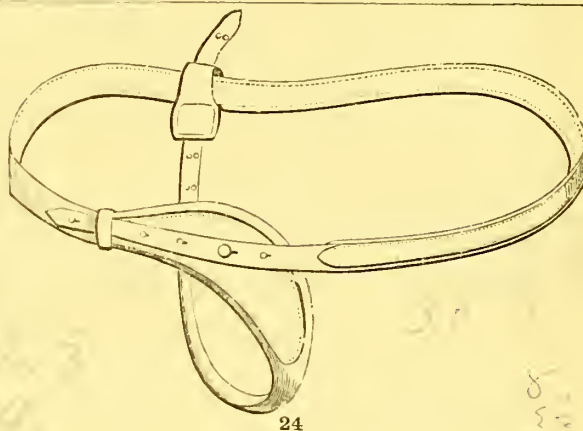
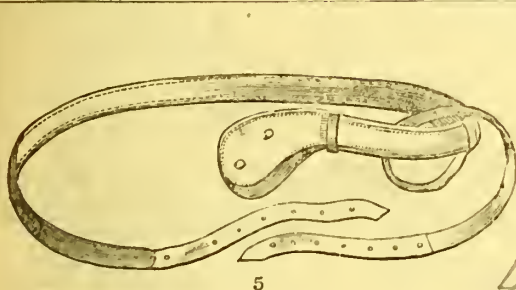
MANUFACTORY: 116 NEWINGTON CAUSEWAY, LONDON, S.E.

TRUSSES,

MANUFACTURED BY

S. MAW, SON & THOMPSON,

7 to 12 ALDERSGATE STREET,

LONDON.**Circular (Fig. 5), 14 to 40 inches—**

	Single	Double
Covered with Basil and Moleskin per doz.	21/	34/
Covered with Roan and Moleskin „	16/	30/
Covered with Blue or Red Morocco and Moleskin „	24/	40/

Circular (Fig. 4), with Slide Pad, 30 to 40 inches—

Covered with Blue or Red Morocco, and Lined with Calf		
per doz.	32/	54/

Circular Scrotal (Fig. 24), 30 to 40 inches—

Covered with Basil and Moleskin per doz.	48/	84/
Covered with Roan and Moleskin „	40/	68/

Salmon & Ody's (Expired Patent) (Fig. 15), 30 to 40 inches—

Covered with Calf and Chamois Leather ... per doz.	27/	54/
Covered with White Roan „	36/	72/

SPECIAL QUOTATIONS TO WHOLESALE BUYERS.



THE LIVERPOOL PATENT LINT CO.,
MANUFACTURERS OF
PATENT FLAX & COTTON LINTS,
WHITE AND GREY BANDAGES,
ABSORBENT AND CARDED COTTON WOOLS, STYPTIC TOW.
MARK STREET MILLS,
NETHERFIELD ROAD NORTH, **LIVERPOOL.**

THE SURGEONS' LINT.

V.B. QUALITY.

The superior quality of NEWSOME'S ABSORBENT SURGEONS' LINT is universally admitted.

The V.B. Quality is quite pure and of great superficial area and exquisite softness.

The C. Quality is equally absorbent and pure, but stronger in fabric.

Newsome's Bleached Rolled Bandages, 3 in., 2½ in., 2 in. Also Surgical Absorbent Open Bandages. Specially Bleached Grey Carded Cotton Wools, Absorbent and Bleached and Grey Waddings; also Sheet Waddings, Tow, &c.

THE TRADE SUPPLIED THROUGH THE LONDON AND PROVINCIAL WHOLESALE HOUSES, OR FROM

C. NEWSOME, Spinner and Manufacturer, Jersey Street Mills, Ancoats, MANCHESTER.
London Agents: B. PRATT & CO., Wood Street, E.C.

LINT.
GAMGEE TISSUE.
(PATENT ABSORBENT GAUZE AND COTTON WOOL.)

ABSORBENT COTTON WOOL.

ROLL BANDAGES.

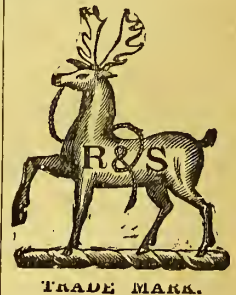
ROBINSON & SONS,

COTTON SPINNERS AND MANUFACTURERS OF

SURGEONS' LINTS, COTTON WOOLS, AND BANDAGES,

WHEAT BRIDGE MILLS, NEAR CHESTERFIELD.

Depot—55 Fann Street, Aldersgate Street, London.



SHOP BOTTLES & JARS

WITH VITRIFIED (burnt in) LABELS

(Black letters on a ground of pink or white enamel).

Narrow-mouthed and Wide-mouthed Bottles, well stoppered; Capped and Tube-stoppered Oil Bottles; Syrup Bottles, with Plug Stoppers of Dark Blue or White Opaque Glass; Lozenge Jars with Cut Glass Knobs; Cut Perfume Bottles, Round, Oval, and Square; Shop Jars of Best Porcelain, thoroughly Greaseproof. Labels Indestructible and of Elegant Appearance, forming an even surface with the Glass or Porcelain. PRICE LIST ON APPLICATION. A Large Variety of Samples on Show at

H. POTHS & CO.,

4 SUGARLOAF COURT, 50 LEADENHALL STREET, LONDON, E.C.



Amongst others the following have been supplied with these Bottles and Jars:—Bradford & Co., Bridlington Quay; Birka N. & W. H., Adelaide S. A.; Buchner, M., 124 High Street, Whitechapel, London, E.; Brown, Alex., Dunoon, N. B.; Corry, T. C. S., Dr., Belfast; Cottingham, W., Lincoln; Croyden, E. H., Newcastle-under-Lyme; Davis, Haydn, High Harrogate; Donovan, Richard, Blackrock, near Dublin; Durrant, G. R., Hertford; Hall, Ralph, 552 Kingland Road, London, N.; Hill, J. B., Auckland, N. Z.; Jenkins, J. T., Nottingham; Jones & Co., Christchurch, N. Z.; Lofthouse, J., Fleetwood; Pasmore, W. F., 820 Regent Street, London; Potts, Charles, Ilkeston; Proctor, Wm. & Son, Newcastle-on-Tyne; Roberts, D. P., Croydon, Surrey; Robinson, C. J., Streatham, London; Robinson, H., Bailden, near Leeds; Sonthern, J., Manchester, opposite the Assize Court; Taylor, P. N., 14 Basinghall St., London, E.C.; Twinberrow, W. & Son, 80 Wigmore Street, London, W. Waterall, Geo., & Sons, Nottingham.

ESTABLISHED 1848.

P. BOURJEAUD.

INVENTOR OF THE

SPIRAL ELASTIC BELTS, STOCKINGS,

And of SUSPENSORY BANDAGES free from Waist Band,

3 GROSVENOR ST., GROSVENOR SQUARE, W. (Three Doors from Bond Street).

BY ROYAL LETTERS PATENT,

PATENT LIFTING INGUINAL HERNIA TRUSS,

FREE FROM CIRCULAR STEEL BAND.

Guaranteed to keep up any Hernia whatever may be its size. Send circumference of body.

Price, Single, £2 12s. 6d.; Double, £3 13s. 6d. Discount to the Trade, 25

At home from 11 to 4. All orders to be accompanied by Cheque or P.O.O.

ESCHMANN BROS. & WALSH,

23, BARTHOLOMEW SQUARE, LONDON, E.C.,

INVENTORS AND MANUFACTURERS OF THE

Soft Silk Flexible Catheter,

WITH WOVEN EYES.

TO BE HAD OF ALL SURGICAL INSTRUMENT MAKERS AND WHOLESALE HOUSES.



Used in the British Army, and highly commended by many eminent Surgeons.

ALL KINDS OF
SPREAD & MARGINAL
PLASTERS,
MUSTARD PLASTER,
CORN PLASTERS
WOVEN BANDAGES,
&c., &c.
BEST QUALITY.**FRANCIS' BRONCHIAL PROTECTOR.**

REGISTERED TRADE MARK.

Best preventive and cure of Bronchitis, Asthma, Winter Cough, Tight Breathing, and all Throat Complaints. 13s. 6d. and 2s. 9d.

MANUFACTURED BY

A. de ST. DALMAS, LEICESTER.
Formerly MOOR.**HAYWOOD'S SURGICAL APPLIANCES.**

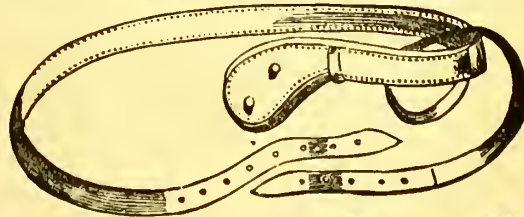
A. Improved Knitted Chest and Back Protector.



B. Improved Knitted Chest and Throat Protector.



C. Elastic Stockings.



D. Trusses.

Greatest attention paid to Special Orders, which are invariably forwarded per return of post.



E. Suspensory Bandage.

List of Prices and Directions for Measurement forwarded on application.

J. H. HAYWOOD, Castle Gate, NOTTINGHAM.

THE ONLY PERFECT ENEMA OBTAINABLE.

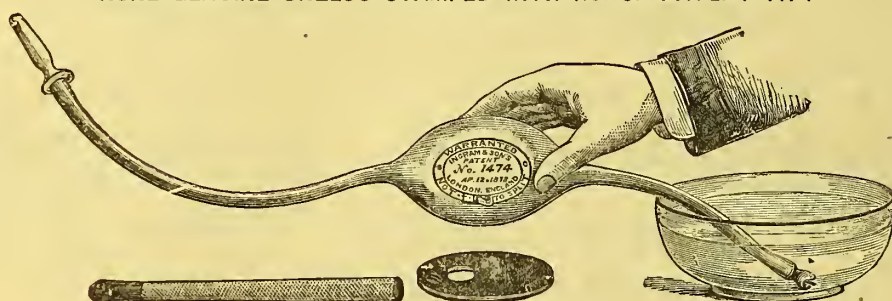
INGRAM'S IMPROVED HIGGINSON ENEMA AND SYRINGE APPARATUS

(BY ROYAL LETTERS PATENT).

Made without Seams or Ribs by our Patent Process of dipping in a solution of India Rubber, thus adding great strength and durability.

NONE GENUINE UNLESS STAMPED WITH NO. OF PATENT 1474.

CAUTION.—The only
Enema made without
Ribs.



All Imitations may be
detected by the Ribs on the
Surface, and are always
liable to split.

WARRANTED NOT TO SPLIT.

A.—Metal Pin Valve.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is perfectly smooth on the surface, will not become hard or sticky, will not leak, and will not admit air while injecting or refilling. Specially prepared to resist the heat of tropical countries.

The great superiority of INGRAM'S IMPROVED PATENT SEAMLESS ENEMA over all others has given rise to VARIOUS IMITATIONS, and it has become imperative that the Patentees should, in order to PREVENT DECEPTION, explain the PROCESS OF MANUFACTURE OF THEIR ENEMA and the MODE OF MANUFACTURE OF IMITATIONS thereof, as they have UNDENIABLE PROOF that INFERIOR ENEMAS are positively BEING SOLD as their "ADVERTISED" PATENT SEAMLESS ENEMA.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is made by a NEW PATENT PROCESS, viz. : By repeated dipping in a solution of India Rubber until the required substance is attained. This process adds greatly to its STRENGTH and DURABILITY, and, at the same time, dispenses with ALL SEAMS, which, as is well known, are weak points in an Enema. This improved mode of manufacture (the result of long study and experience) enables the Patentees to produce a PERFECT ENEMA WITHOUT SEAMS, thus overcoming the great fault to be found in ALL other Enemas, viz. : SPLITTING AND LEAKING, which has always been a source of trouble.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is fitted with IMPROVED VALVES, which prevent the admission of air with the fluid and CAN at any time BE REPAIRED, if necessary.

CAUTION.—Imitations of INGRAM'S IMPROVED PATENT SEAMLESS ENEMA are made of several pieces of Sheet India Rubber, which are cemented together and shaped in a mould, THUS PRODUCING RIBS ON THE SURFACE, and ENEMAS SO MANUFACTURED ARE ALWAYS LIABLE TO SPLIT AND LEAK AT THE SEAMS, AND THUS TO BECOME QUITE USELESS.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA may be distinguished from ALL IMITATIONS by its ENTIRE FREEDOM FROM RIBS OF ANY DESCRIPTION on its surface, and by having an IMPROVED METAL PIN VALVE at the suction end A ; and it is acknowledged to be the ONLY PERFECT ENEMA OBTAINABLE.

Patented in England, No. 1474, April 12, 1878; in France, No. 126,909, October 11, 1878; and in America, No. 212,939, March 4, 1879.

To be obtained of all Surgical Instrument Makers, Druggists' Sundriesmen, Chemists and Druggists, in the three following qualities:—

No. 1a. Highly Polished, in Red, Green, Blue, Black, or White.

No. 1b. Unpolished, in Red, Green, Blue, Black, or White.

No. 2. Unpolished, in Drab only.

Favourably noticed in "British Medical Journal," December 13, 1879; and in the "Lancet," January 3, 1880.

20 HIGHEST AWARDS.—INTERNATIONAL VICTORIES, 1883.

Gold Medal, Pharmaceutical Exhibition, Vienna, Austria. Silver Medal, World's Exposition, Amsterdam, Holland.

HIGHEST AWARDS OVER ALL COMPETITORS.**SPECIALTY:**

Pharmacopœia & Surgical Plasters in Indiarubber Combination.

POROUS AND PLAIN SPREAD.

ANTISEPTICS, ANTISEPTIC DRESSINGS AND ABSORBENTS.

SEABURY & JOHNSON**PLASTERS.**

Adhesive, Breast, Corn, Bunion, Court, Homœopathic, Isinglass, Kid, Mead's, Medicinal, Mustard, Spice, Pharmaceutical and Surgical, of every description, in the most approved form.

COTTONS.

Absorbent, Iodoform, Borated, Salicylated, Carbulated, Styptic Cottons. Absorbent Cottons, impregnated with Benzoic Acid, Corrosive Sub., Naphthaline, Chloride Zinc, &c., of any desired strength.

GAUZE.

Lister's Carbulated, Corrosive Sub., Eucalyptol, Iodoform, Naphthaline, Thymol, Plain Bleached, and Absorbent. We will supply Gauze impregnated with Benzoic Acid, Naphthaline, Salicylic Acid, Chloride of Zinc, &c., of any desired strength.

LINT.

Absorbent, Borated, Carbulated, Salicylated, Sublimated, &c., &c. We will supply Absorbent Lints with any Antiseptic of any desired strength. Also Flax Lints.

Crude Antiseptics, Drainage Tubes, Bone and Rubber, Iodoform Sprinklers, &c., &c.

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**Plasters,
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Bandages,
Oiled Silk,
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Mackintosh Cloth,
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Porous Size, $5 \times 7\frac{1}{2}$ inches. Rubber Adhesive, in 1 and 5 yard rolls, 5 to 7 inches in width. Breast, 6 and 7 inches in diameter, &c. Rubber Adhesive, Mead's, and Isinglass on spools, $\frac{1}{2}$, 1, 2, and 3 inches wide, 10 yards long. Special formulæ made to order.

OUR COTTONS ARE

Perfectly neutral. Have no acid reaction. Very absorbent. In continuous layers in boxes and packages containing 1, 2, 4, 8, and 16 ounces. Strength and quality guaranteed.

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25 per cent. cheaper than any in the market. 20 per cent. more surface to the pound roll. Greater absorbency, and manufactured of pure materials. Tears in both directions—most Lint tears only one way. In lbs., ounces, and small packages for retailing. We are the original producers in this country.

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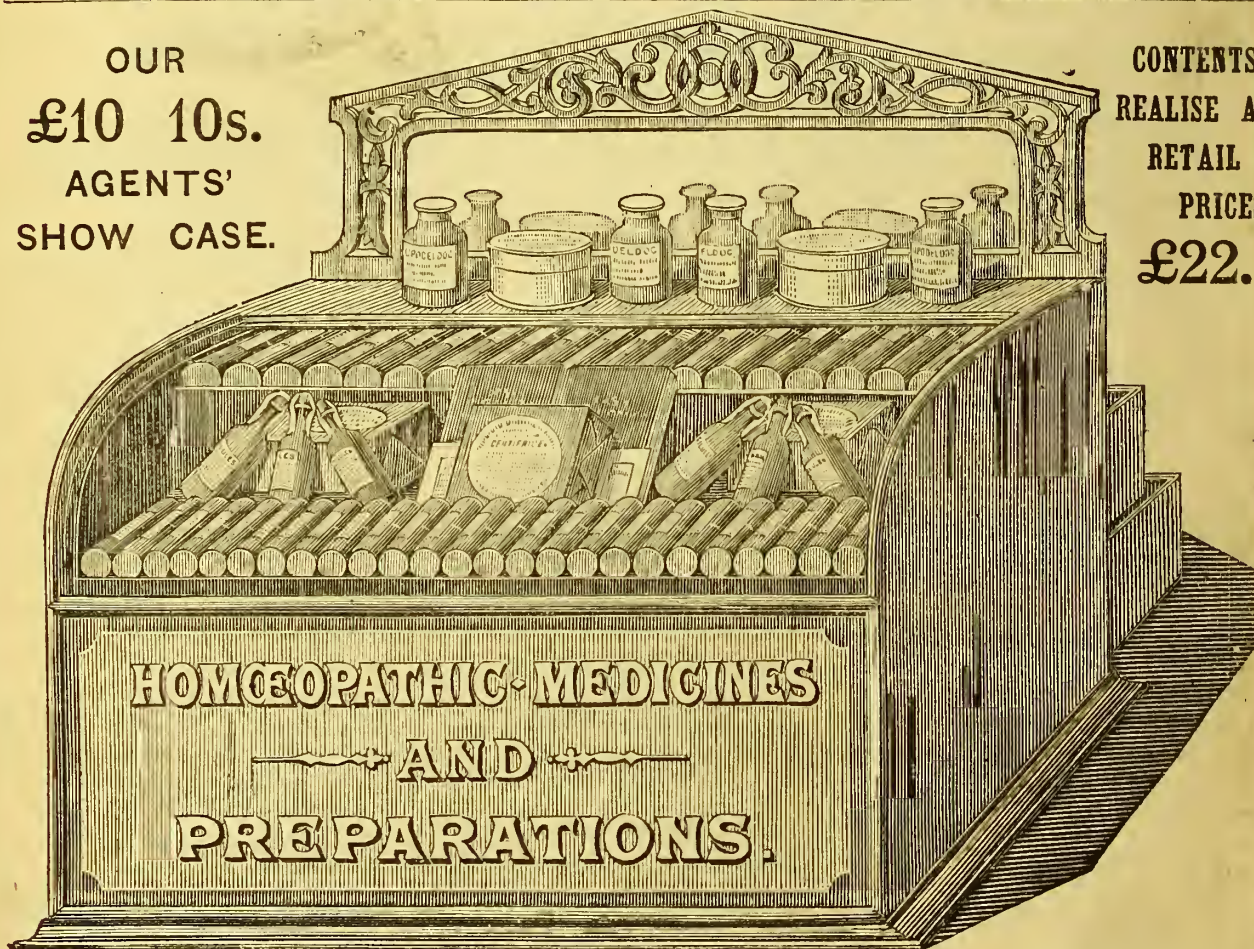
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£5 10 0 contents realise	£11 11 0
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Scarlet or White Felt

PER DOZEN.

No. 1	24/-
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" 5	54/-



SCARLET or WHITE FELT, per dozen.

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DREADNOUGHT, Double	... 16/6	22/-	27/-	33/-	44/-
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CHAMOIS LEATHER, lined with Flannel, per dozen.

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SINGLE, Per Doz.	... 29/-	31/-	33/-	35/-	—
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